ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director

NORTH CAROLINA
Environmental Quality

INSERT DATE

Mr. Bernhard Vorreiter
Project Director
EGGER Wood Products, LLC
PO Box 907
Lexington, NC 27293

SUBJECT: Air Quality Permit No. 10565R00
Facility ID: 2900386
EGGER Plant - Lexington
Linwood, North Carolina
Davidson County
Fee Class: Title V
PSD Class: Major

Dear Mr. Vorreiter:

In accordance with your completed Air Quality Permit Application received December 22, 2017, we are forwarding herewith Air Quality Permit No. 10565R00 to EGGER Wood Products, LLC ("EGGER Plant – Lexington"), 300 Egger Parkway, Linwood, North Carolina for the construction and operation of air emissions sources or air cleaning devices and appurtenances. If the facility is assigned a 911 address from Davidson County and if that address is different from 300 Egger Parkway 27299, the Permittee shall submit a permit application for an administrative amendment to change the address within 60 days of the change. Please note the records retention requirements are contained in General Condition 2 of the General Conditions and Limitations.

If any parts, requirements, or limitations contained in this permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. Such a request will stay the effectiveness of the entire permit. This hearing request must be in the form of a written petition, conforming to NCGS 150B-23 of the North Carolina General Statutes, and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Unless a request for a hearing is made pursuant to NCGS 150B-23, this air permit shall be final and binding.

You may request modification of your air permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that the permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

Unless exempted by a condition of this permit or the regulations, construction of new air pollution sources or air cleaning devices, or modifications to the sources or air cleaning devices described in this permit must be covered under a permit issued by the Division of Air Quality prior to construction. Failure to do so is a violation of NCGS 143-215.108 and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Davidson County has triggered increment tracking under PSD for PM_{10}. This modification will result in an increase in 37.5 lbs/hr (PM_{10}). The modification results in significant emissions increases of $PM_{2.5}$ (30.0 lbs/hr) and NOx (276.1 lbs/hr); thus, establishing a minor source baseline date of August 8, 2018 for Davidson County for these pollutants.

The Permittee is responsible for carefully reading the entire permit and evaluating the requirements of each permit stipulation. The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

This permit shall be effective from INSERT DATE until INSERT DATE, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Charles F. Yirka at 919 707-8728 and charlie.yirka@ncdenr.gov.

Sincerely yours,

William D. Willets, P.E., Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

c: Heather Ceron, EPA Region 4
Connie Horne (cover letter only)
Winston-Salem Regional Office
Central Files

State of North Carolina
Department of Environmental Quality
Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
10565R00	NA	INSERT DATE	INSERT DATE add 8 years

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee: **EGGER –Wood Products, LLC**
Facility ID: **2900386**

Facility Site Location*: **300 Egger Parkway**
City, County, State, Zip: **Linwood, Davidson County, North Carolina, 27299**
*If the facility is assigned a 911 address from Davidson County and if that address is different from 300 Egger Parkway 27299, the Permittee shall submit a permit application for an administrative amendment to change the address within 60 days of the change.

Mailing Address: **EGGER Wood Products LLC**
City, State, Zip: **PO Box 907, Lexington, NC 27293**
Application Number: **2900386.18A**
Complete Application Date: **INSERT DATE**

Primary SIC Codes: **2493/321219**
Division of Air Quality, **Winston-Salem Regional Office**
Regional Office Address: **450 West Hanes Mill Road, Suite 300, Winston-Salem, NC 27105**

Permit issued this the INSERT day of INSERT , INSERT

_____
William D. Willets, P.E., Chief, Air Permitting Section
By Authority of the Environmental Management Commission

Table of Contents

SECTION 1 - PERMITTED EMISSION SOURCES AND ASSOCIATED AIR POLLUTION CONTROL DEVICES AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
RAW MATERIAL STORAGE AND WET CHIP PREPARATION			
Material Transfer, Storage and Screening			
015.061 **MACT DDDD** **PSD**	Transfer of Logs to Storage Piles	NA	NA
015.011 **MACT DDDD** **PSD**	Outdoor Roundwood Storage Piles	NA	NA
015.071 **MACT DDDD** **PSD**	Transfer of Purchased Hackchips to Storage Piles	NA	NA
015.021 **MACT DDDD** **PSD**	Outdoor Hackchip Storage Piles	NA	NA
015.081 **MACT DDDD** **PSD**	Transfer of Purchased Sawdust to Storage Pile	NA	NA
015.031 **MACT DDDD** **PSD**	Outdoor Sawdust Storage Piles	NA	NA
101.011 **MACT DDDD** **PSD**	Sawdust Screening	NA	NA
Material Preparation			
101.021 **MACT DDDD** **PSD**	Transfer of Purchased Shavings to silo storage	CD-101.021	One bagfilter (2,373 square feet of filter area)
104.011 **MACT DDDD** **PSD**	Chipper	CD-104.011	One bagfilter (1,092 square feet of filter area)
104.021a through 104.021d **MACT DDDD** **PSD**	Knife Ring Flakers	CD-104.021	One bagfilter (5,072 square feet of filter area)
104.031a through 104.031d **MACT DDDD** **PSD**	Ecopulsers	CD-104.031	One bagfilter each (1,770 square feet of filter area)
104.041 **MACT DDDD** **PSD**	Flaker	CD-104.041	One bagfilter (3,867 square feet of filter area)

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
104.051 **MACT DDDD PSD**	High pressure conveyance system for the Hammer Mill	CD-104.051	One bagfilter (427 square feet of filter area)
104.061 **MACT DDDD PSD**	Hammer Mill for Wood Shavings	CD-104.061	One bagfilter (3,164 square feet of filter area)
RECYCLED MATERIAL STORAGE AND RECYCLING PLANT[1]			
Recycled Materials Transfer and Storage			
015.091 **MACT DDDD PSD**	Transfer to Recycled Wood Storage Piles	NA	NA
015.041 **MACT DDDD PSD**	Recycled Wood Storage Piles	NA	NA
015.101 **MACT DDDD PSD**	Transfer to Biomass Fuel Storage Piles	NA	NA
015.051 **MACT DDDD PSD**	Biomass Fuel Storage Piles	NA	NA
Recycled Materials Preparation			
102.011 **MACT DDDD PSD**	Mill 1	CD-102.011	One bagfilter (4,520 square feet of filter area)
102.021 **MACT DDDD PSD**	Mill 2	CD-102.021	One bagfilter (4,520 square feet of filter area)
102.031 **MACT DDDD PSD**	General De-Dusting	CD-102.031	One bagfilter (10,545 square feet of filter area)
102.041 **MACT DDDD PSD**	Hammer Mill 1 Extraction	CD-102.041	One bagfilter (3,164 square feet of filter area)
102.051 **MACT DDDD PSD**	Hammer Mill 2 Extraction	CD-102.051	One bagfilter (3,164 square feet of filter area)
102.061 **MACT DDDD PSD**	Hammer Mill 3 Extraction	CD-102.061	One bagfilter (1,770 square feet of filter area)

[1] Recycled wood is used in two ways in EGGER's Particleboard production processes; primarily as a raw material for Particleboard production and secondarily as a solid thermal energy fuel in cases where recycled material is not suitable for use in Particleboard production. Recycled wood will be brought onto the site from local recycling and construction and demolition sites.

The recycled materials sourced by the site will be non-hazardous secondary materials. More specifically, the materials used will either be classified as Resinated wood as defined in 40 CFR 241.4 (a)(2), Construction and demolition (C&D) wood as defined in 40 CFR 241.4 (a)(5), Clean Cellulosic biomass which is a type of Traditional fuel, or other non-regulated fuel materials.

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
102.041 **MACT DDDD PSD**	Hammer Mill 1 Extraction	CD-102.041	One bagfilter (3,164 square feet of filter area)
102.051 **MACT DDDD PSD**	Hammer Mill 2 Extraction	CD-102.051	One bagfilter (3,164 square feet of filter area)
102.061 **MACT DDDD PSD**	Hammer Mill 3 Extraction	CD-102.061	One bagfilter (1,770 square feet of filter area)
102.071a though 102.071p **MACT DDDD PSD**	Sifter Extraction	CD-102.071a through d	Four bagfilters (1,770 square feet of filter area, each)
102.081 **MACT DDDD PSD**	Recycling Dust Silo Conveyance System	CD-102.081	One bagfilter (427 square feet of filter area)
MATERIAL DRYING			
Fuel Conveyance System			
105.021 **MACT DDDD PSD**	Conveyance system for fuel to the surface layer drying system	CD-105.021	One bagfilter (427 square feet of filter area)
105.031 **MACT DDDD PSD**	Conveyance system for fuel to the core layer drying system	CD-105.031	One bagfilter (427 square feet of filter area)
Biomass Energy Recovery Furnace and Surface Layer Dryer			
107.011 109.011 109.012 **MACT DDDD PSD**	Natural gas-fired with low NOx burners (155 million Btu per hour maximum rated heat input) biomass-fired[2] suspension burner (92 million Btu per hour reciprocating grate maximum rated heat input) Biomass Energy Recovery Furnace (ERF)	CD-108.01 CD-108.02	Wet Electrostatic Precipitator Regenerative Thermal Oxidizer
	Natural gas-fired with low NOx burners (103 million Btu per hour maximum rated heat input capacity) Surface Layer Dryer		

[2] The Biomass ERF will produce a hot gas stream by combusting recycled materials from the process, externally purchased recycled materials, purchased biomass and supplementary natural gas.

EGGER will only accept material that is classified as Non-Hazardous Secondary Material (NHSM) in Solid Wastes Used As Fuels or Ingredients In Combustion Units (40 CFR 241).

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Core Layer Dryer			
109.021 109.022 **MACT DDDD** **PSD**	Natural gas and recycled wood dust-fired with low NOx burners (137 MMBtu/hr heat input capacity) Core Layer Dryer	CD-108.01 CD-108.02	Wet Electrostatic Precipitator Regenerative Thermal Oxidizer
DRY CHIP PREPARATION			
110.011 **MACT DDDD** **PSD**	High pressure transport screening dust to Silo 168	CD-110.011	One bagfilter (427 square feet of filter area)
110.021 **MACT DDDD** **PSD**	High pressure transport oversize material	CD-110.021	One bagfilter (264 square feet of filter area)
110.031 **MACT DDDD** **PSD**	Wing Beater Mill (PSKM) extraction	CD-110.031	One bagfilter (1,431 square feet of filter area)
110.041 **MACT DDDD** **PSD**	Ecopulser 1 extraction	CD-110.041	One bagfilter (439 square feet of filter area)
110.051 **MACT DDDD** **PSD**	Ecopulser 2 extraction	CD-110.051	One bagfilter (439 square feet of filter area)
110.061 **MACT DDDD** **PSD**	Conveyance system core layer material to Silo 165	CD-110.061	One bagfilter (427 square feet of filter area)
110.071 **MACT DDDD** **PSD**	General De-dusting	CD-110.071	One bagfilter (12,051 square feet of filter area)
110.091 **MACT DDDD** **PSD**	Extraction Heavy Goods Separator Extraction	CD-110.091	One bagfilter (3,867 square feet of filter area)
110.101 **MACT DDDD** **PSD**	Extraction Heavy Goods Separator Extraction	CD-110.101	One bagfilter (3,867 square feet of filter area)
110.111 **MACT DDDD** **PSD**	Hammer Mill Extraction	CD-110.111	One bagfilter (2,360 square feet of filter area)
MATTRESS FORMING AND PRESSING			
Particleboard Press Thermal Oil Heater			
111.011 **NSPS Dc** **MACT DDDDD** **PSD**	Natural gas-fired Backup Thermal Oil Heater with low NOx burners (30 MMBtu/hr heat input capacity) for Particleboard Press	NA	NA

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Particleboard Press			
111.021 **MACT DDDD** **PSD**	Biomass Energy Recovery Furnace's Thermal Oil Heat and Natural gas-fired Backup Thermal Oil Heater to Particleboard Press	CD 111.021	Wet Scrubber
Particleboard Forming			
111.031 **MACT DDDD** **PSD**	Spreader Extraction	CD 111.031	One bagfilter (4,520 square feet of filter area)
111.041 **MACT DDDD** **PSD**	Mattress Former General Extraction	CD 111.041	One bagfilter (10,546 square feet of filter area)
111.071 **MACT DDDD** **PSD**	Rejected Material to Silo 162 Extraction System	CD 111.071	One bagfilter (427 square feet of filter area)
111.072 **MACT DDDD** **PSD**	Rejected Material to Silo 155 Extraction System	CD 111.072	One bagfilter (427 square feet of filter area)
111.081 **MACT DDDD** **PSD**	Mattress Preheating Exhaust System	CD 111.081	One bagfilter (1,507 square feet of filter area)
PRODUCT SAWING, COOLING AND SANDING			
Cut Particleboard Product Cooling			
112.011 **MACT DDDD** **PSD**	Star Coolers	NA	NA
Particleboard Product Sanding and Sawing			
112.021 **MACT DDDD** **PSD**	Diagonal Saw Extraction	CD 112.021	One bagfilter (6,026 square feet of filter area)
112.031 **MACT DDDD** **PSD**	Sanding Machine Extraction	CD 112.031	One bagfilter (3,013 square feet of filter area)
112.041 **MACT DDDD** **PSD**	Dividing Saw Extraction	CD 112.041	One bagfilter (15,065 square feet of filter area)
112.051 **MACT DDDD** **PSD**	Sanding Dust Conveyance System to Silo 169	CD 112.051	One bagfilter (427 square feet of filter area)
112.061 **MACT DDDD** **PSD**	Cut Material Conveyance System to Silo 162 Extraction	CD 112.061	One bagfilter (264 square feet of filter area)
112.071 **MACT DDDD** **PSD**	Diagonal Saw Offcuts to Granulate Silo 162 Extraction	CD 112.071	One bagfilter (264 square feet of filter area)

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
PRODUCT UPGRADING			
Paper Impregnation Lines			
115.011 115.012 **MACT JJJJ** **PSD**	Impregnation Line 1 with direct-fired natural gas low NOx Burner (13.6 million Btu per hour heat input capacity)	NA	NA
115.021 115.022 **MACT JJJJ** **PSD**	Impregnation Line 2 with direct-fired natural gas-fired low NOx Burner (13.6 million Btu per hour heat input capacity)		
115.031 115.032 **MACT JJJJ** **PSD**	Impregnation Line 3 with direct-fired natural gas-fired low NOx Burner (13.6 million Btu per hour heat input capacity)		
Lamination Thermal Oil Heater			
116.011 **NSPS Dc** **MACT DDDDD** **PSD**	Natural gas-fired Backup Thermal Oil Heater with low NOx burners (20.5 million Btu per hour heat input capacity) for Lamination	NA	NA
Particleboard Lamination			
116.021 **PSD**	Lamination line with press 1	CD 116.021	One bagfilter (4,520 square feet of filter area)
116.031 **PSD**	Lamination line with press 2	CD 116.031	One bagfilter (4,520 square feet of filter area)
117.011 **PSD**	Lamination line with press 3	CD 117.011	One bagfilter (4,520 square feet of filter area)
117.021 **PSD**	Lamination line with press 4	CD 117.021	One bagfilter (4,520 square feet of filter area)
117.041 **MACT DDDD** **PSD**	Dust and Granulate to Silo 167 Conveyance System	CD 117.041	One bagfilter (427 square feet of filter area)
Warehouse, Sawing, Packaging and Dispatch			
118.011 **MACT DDDD** **PSD**	Saw Extraction	CD 118.011	One bagfilter (3,390 square feet of filter area)
118.021 **MACT DDDD** **PSD**	Saw Offcut Conveyance System to Silo 162	CD 118.021	One bagfilter (264 square feet of filter area)
118.031 **MACT DDDD** **PSD**	Sawing Dust Conveyance System		

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
SITE EMERGENCY GENERATORS AND FIRE WATER PUMPS			
011.011 **NSPS IIII** **MACT ZZZZ** **PSD**	Diesel-fired Waste Water Treatment Area Emergency Generator (671 maximum brake horsepower)	NA	NA
105.011 **NSPS IIII** **MACT ZZZZ** **PSD**	Diesel-fired Biomass Fuel Preparation Area Emergency Generator (671 maximum brake horsepower)	NA	NA
111.091 **NSPS IIII** **MACT ZZZZ** **PSD**	Diesel-fired Particleboard Press Area Emergency Generator (671 maximum brake horsepower)	NA	NA
112.081 **NSPS IIII** **MACT ZZZZ** **PSD**	Diesel-fired Finishing Area Emergency Generator (671 maximum brake horsepower)	NA	NA
116.051 **NSPS IIII** **MACT ZZZZ** **PSD**	Diesel-fired Lamination Area Emergency Generator (671 maximum brake horsepower)	NA	NA
010.011 010.021 **NSPS IIII** **MACT ZZZZ** **PSD**	Two Diesel-fired Emergency Sprinkler Diesel Fire Water Pumps 1 and 2 (215 maximum brake horsepower, each)	NA	NA
010.031 **NSPS IIII** **MACT ZZZZ** **PSD**	Diesel-fired Emergency Hydrant Diesel Fire Water Pump (215 maximum brake horsepower)	NA	NA
MISCELLANEOUS STORAGE TANKS			
115.01.01 through .08 **PSD**	Eight MR Resin Tanks 1 through 8 (30 cubic/meters capacity, each)	NA	NA
111.01.01 through .08 **PSD**	Eight Urea Formaldehyde Glue Tanks 1 through 8 (150 cubic/meters capacity, each)	NA	NA
111.05.01 111.05.02 **PSD**	Two Ammonium Sulfate Tanks 1 and 2 (5 cubic/meters capacity, each)	NA	NA
111.08.01 **PSD**	Ammonium Sulfate Totes 3-30 (1 cubic/meters capacity)	NA	NA
111.03.01 111.03.02 **PSD**	Two Paraffin Emulsion Tanks 1 and 2 (80 cubic/meters capacity, each)	NA	NA
111.04.01 through .03 **PSD**	Three Hardener Tanks 1 through 3 (30 cubic/meters capacity, each)	NA	NA

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
111.09.01 **PSD**	Release Agent Tote (1 cubic/meters capacity)	NA	NA
111.02.01 111.02.02 **PSD**	Two Isocyanate Tanks (80 cubic/meters capacity, each)	NA	NA
111.06.01 111.06.02 **PSD**	Two Urea Tanks 1 and 2 (5 cubic/meters capacity, each)	NA	NA
111.07.01 **PSD**	Urea Totes 1-30 (1 cubic/meters capacity)	NA	NA
111.10.01 **PSD**	Pigment Tank 1 (1 cubic/meters capacity)	NA	NA
115.03.01 **PSD**	Melamine Hardener Tank (12 cubic/meters capacity)	NA	NA
115.03.02 **PSD**	Urea Hardener Tank (12 cubic/meters capacity)	NA	NA
115.03.03 **PSD**	Surface Activation Tank (12 cubic/meters capacity)	NA	NA
115.03.04 **PSD**	Separating Agent Tank (12 cubic/meters capacity)	NA	NA
115.02.01 through .07 **PSD**	Seven Urea Resin Tanks 1 through 7 (30 cubic/meters capacity, each)	NA	NA
115.03.05 115.03.06 **PSD**	Two Additive Tanks 1 and 2 (12 cubic/meters capacity, each)	NA	NA
DT **PSD**	Diesel Tank 1 (75 cubic/meters maximum capacity)	NA	NA
LPGT **PSD**	LPG Tank 1 (75 cubic/meters maximum capacity)	NA	NA

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1 Emission Sources and Control Devices Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

A. Raw Material Storage and Wet Chip Preparation Sources:

A.1 Material Transfer, Storage and Screening

Table 2.1 A.1.1 – Affected Sources

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Material Transfer and Storage			
015.061	Transfer of Logs to Storage Piles	NA	NA
015.011	Outdoor Roundwood Storage Piles	NA	NA
015.071	Transfer of Purchased Hackchips to Storage Piles	NA	NA
015.021	Outdoor Hackchip Storage Piles	NA	NA
015.081	Transfer of Purchased Sawdust to Storage Pile	NA	NA
015.031	Outdoor Sawdust Storage Piles	NA	NA
101.011	Sawdust Screening	NA	NA

The following table provides a summary of limits and/or standards for the above emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	20 percent opacity	15A NCAC 02D .0521
VOC, $PM_{10,}$ $PM_{2.5}$, opacity	Best Available Control Technology	15A NCAC 02D .0530
HAPs	No applicable requirements	15A NCAC 02D .1111 (40 CFR Part 63 Subpart DDDD)
Odors	**State Enforceable Only** Odorous emissions must be controlled - See Section 2.2 A.1.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0314]

c. No monitoring, record keeping, or reporting is required for visible emissions from these emission sources.

2. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded for the Material Transfer and Storage Sources. These BACT limits shall apply at all times.

Table 2.1 A.1.2 – BACT

Emission Source ID No.	Emission Source Description	Pollutants	Emission Limits	Control Technology
Material Transfer, Storage and Screening				
015.061 015.011 015.071 015.021 015.081 015.031 101.011	Transfer of Logs to Storage Piles Outdoor Roundwood Storage Piles Transfer of Purchased Hackchips to Storage Piles Outdoor Hackchip Storage Piles Transfer of Purchased Sawdust to Storage Pile Outdoor Sawdust Storage Piles Sawdust Screening	VOC	**Total for the Raw Material Storage and Wet Chip Preparation Sources***	None
			73.17 lb/hr; and 240.04 tpy	
		PM_{10}	**Total for Material Transfer, Storage and Screening Sources**	Good Design, Operating and Maintenance practices
			0.26 lb/hr; and 1.12 tpy	
		$PM_{2.5}$	**Total for Material Transfer, Storage and Screening Sources**	Good Design, Operating and Maintenance practices
			0.10 lb/hr; and 0.44 tpy	
		opacity	**For Each Source**	Good Design, Operating and Maintenance practices
			20 percent	

* This BACT limit applies to the entire Raw Material Storage and Wet Chip Preparation Sources which includes Material Transfer, Storage and Screening Screening, above, and Material Preparation Table 2.1 A.2.1 Affected Sources, below.

Testing (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

b. If emissions testing is required for opacity emissions, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

c. VOC, PM_{10}, $PM_{2.5}$ and opacity emissions from the Material Transfer and Storage Sources in Table 2.1 A.1.1-Affected Sources (above) shall be controlled as presented in Table 2.1 A.1.2-BACT (above).
d. The Permitee shall monitor the amounts of these raw materials transferred from trucks and railcars (purchased mass tracking).
   i. Roundwood Logs
   ii. Hackchips
   iii. Wood Shavings
   iv. Sawdust
e. The amounts of these raw materials transferred from trucks and railcars shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative of DAQ upon request. The logbook shall record the the date and time and the amounts of each of the raw materials transferred.
f. Fugitive emissions of PM during transfer of the logs to the storage piles (015.061) and wind erosion of the stored material pile (015.011) shall be minimized as practicable.
g. The monitoring/recordkeeping requirements in this Section shall be sufficient to ensure compliance with 15A

NCAC 02D .0530.

Reporting (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

h. The reporting requirements in this Section shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

i. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 A.1.2.c-g above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

A.2 Material Preparation

Table 2.1 A.2.1 – Affected Sources

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Material Preparation			
101.021	Transfer of Purchased Shavings to silo storage	CD 101.021	One bagfilter (2,373 square feet of filter area)
104.011	Chipper	CD-104.011	One bagfilter (1,092 square feet of filter area)
104.021 a. through 104.021 d.	Knife Ring Flakers	CD-104.021	One bagfilter (5,072 square feet of filter area)
104.031 a. through d.	Ecopulsers	CD-104.031	One bagfilter (1,770 square feet of filter area)
104.041	Flaker	CD-104.041	One bagfilter (3,867 square feet of filter area)
104.051	High pressure conveyance system for the Hammer Mill	CD-104.051	One bagfilter (427 square feet of filter area)
104.061	Hammer Mill for Wood Shavings	CD-104.061	One bagfilter (3,164 square feet of filter area)

The following table provides a summary of limits and/or standards for the above emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	$E = 4.10P^{0.67}$ or $E = 55.0(P)^{0.11} - 40$ where; E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521
VOC, PM_{10}, $PM_{2.5}$, opacity	Best Available Control Technology	15A NCAC 02D .0530
HAPs	No applicable requirements	15A NCAC 02D .1111 (40 CFR Part 63 Subpart DDDD)
Odors	**State Enforceable Only** Odorous emissions must be controlled - See Section 2.2 A.1.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0515: PARTICULATE EMISSIONS FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources that are discharged into the atmosphere shall not exceed an allowable emission rate as calculated by the following equations:

Process Rate	Allowable Emission Rate Equation
Less than or equal to 30 tons per hour	$E = 4.10 \times P^{0.67}$
Greater than 30 tons per hour	$E = 55.0(P)^{0.11} - 40$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring [15A NCAC 02Q .0314]

c. Particulate matter emissions from the emission sources in Table 2.1 A.2.1-Affected Sources, above, shall be controlled as presented.

d. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. a monthly visual inspection of the systems' ductwork and material collection units for leaks; and
   ii. an annual (for each 12-month period following the initial inspection) internal inspection of the bagfilters' structural integrity.

Recordkeeping [15A NCAC 02Q .0314]

e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection;
   iii. the results of any maintenance performed on any control device; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

Reporting [15A NCAC 02Q .0314]

f. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.

g. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in in Section 2.1 A.2.1.c-e, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring [15A NCAC 02Q .0314]

c. To ensure compliance the Permittee shall observe, on a weekly basis, the following emission points for any visible emissions above normal:

Emission Source Description and ID No.	Emission Point ID No.
Transfer of Purchased Shavings to silo storage 101.021	101.02
Chipper 104.011	104.01
Knife Ring Flakers 104.021 a. through 104.021 d.	104.02
Ecopulsers 104.031 a. through d.	104.03
Flaker 104.041	104.04
High pressure conveyance system for the Hammer Mill 104.051	104.05
Hammer Mill for Wood Shavings 104.061	104.06

The weekly observations must be made for each week of the calendar year period to ensure compliance with this requirement. The Permittee shall establish "normal" for these sources in the first 30 days following the beginning of operation. If visible emissions from these sources are observed to be above normal, the Permittee shall either:

i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or

ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given above.

Recordkeeping [15A NCAC 02Q .0314]

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

Reporting [15A NCAC 02Q .0314]

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section 2.1A.2.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded for the Material Preparation Sources: These BACT limits shall apply at all times.

Table 2.1 A.2.2 – BACT

Emission Source ID No.	Emission Source Description	Pollutants	Emission Limits	Control Technology
Material Preparation				
101.021 104.011 104.021 a through 104.021 d 104.031 a through d 104.041 104.051 104.061	Transfer of Purchased Shavings to silo storage Chipper Knife Ring Flakers Ecopulsers Flaker High pressure conveyance system for the Hammer Mill Hammer Mill for Wood Shavings	VOC	**Total for the Raw Material Storage and Wet Chip Preparation Sources***	None
			73.17 lb/hr and 240.04 tpy	
		PM_{10}	**For Each Source**	Bagfilter Good Design, Operating and Maintenance practices
			.002 gr/dscf	
			Total for Material Preparation Sources	
			0.21 lb/hr and 0.83 tpy	
		$PM_{2.5}$	**Total for Material Preparation Sources**	Bagfilter Good Design, Operating and Maintenance practices
			0.09 lb/hr and 0.34 tpy	
		opacity	**For Each Source**	Bagfilter Good Design, Operating and Maintenance practices
			20 percent	

* This BACT limit applies to the entire Raw Material Storage and Wet Chip Preparation Sources which includes Material Transfer, Storage and Screening Table 2.1 A.1.1-Affected Sources (above) and Material Preparation (above).

Testing (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

b. If emissions testing is required for VOC, PM_{10}, $PM_{2.5}$, and opacity emissions, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

c. VOC, PM_{10}, $PM_{2.5}$ and opacity from the Material Preparation Sources in Table 2.1 A.2.1-Affected Sources, above, shall be controlled as presented in Table 2.1 A.2.2-BACT, above.

d. The monitoring/recordkeeping requirements in Sections 2.1 A.2.1.c through e ,above, and 2.1 A.2.2. c and d, above, shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

Reporting (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

e. The reporting requirements in Sections 2.1 A 2.1.f and g ,above, and 2.1 A.2.2.e, above, shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

B. Recycled Material Storage and Recycling Plant Sources:

B.1 Recycled Material Transfer and Storage

Table 2.1 B.1.1 – Affected Sources

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Recycled Materials Transfer and Storage			
015.091	Transfer to Recycled Wood Storage Piles	NA	NA
015.041	Recycled Wood Storage Piles	NA	NA
015.101	Transfer to Biomass Fuel Storage Piles	NA	NA
015.051	Biomass Fuel Storage Piles	NA	NA

The following table provides a summary of limits and/or standards for the above emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
NA	Non-Hazardous Secondary Materials (NHSM) for Construction and Demolition (C&D) -Categorical Exemption	40 CFR §241.4(a)(5)
Visible emissions	20 percent opacity	15A NCAC 02D .0521
VOC, PM_{10}, $PM_{2.5}$, opacity	Best Available Control Technology	15A NCAC 02D .0530
HAPs	No applicable requirements	15A NCAC 02D .1111 (40 CFR Part 63 Subpart DDDD)
Odors	**State Enforceable Only** Odorous emissions must be controlled - See Section 2.2 A.1.4	15A NCAC 02D .1806

1. 40 CFR §241.4 - NON-WASTE DETERMINATIONS FOR SPECIFIC NON-HAZARDOUS SECONDARY MATERIALS WHEN USED AS A FUEL

a. Non-hazardous secondary materials as per 40 CFR 241.4(a) are not solid wastes when used as a fuel in a combustion units.
b. The Permittee shall only accept material that is classified as Non-Hazardous Secondary Material (NHSM) in Solid Wastes Used As Fuels or Ingredients In Combustion Units [40 CFR 241].
c. The combustor (Permittee) shall obtain written certifications for every new or modified contract, purchase agreement, or other legally binding document from each final processor of C&D wood and must include the statement: the processed C&D wood has been sorted by trained operators in accordance with best management practices. [40 CFR 241.4(a)(iv)]
d. The Permittee shall:
    i. maintain records in a form suitable and readily available for expeditious review;
    ii. keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record; and
    iii. keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records offsite for the remaining 3 years.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0314]

c. No monitoring, record keeping, or reporting is required for visible emissions from these emission sources.

3. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded for the Recycled Materials Transfer and Storage. These BACT limits shall apply at all times.

Table 2.1 B.1.2 – BACT

Emission Source ID No.	Emission Source Description	Pollutants	Emission Limits	Control Technology
Recycled Materials Transfer and Storage				
015.051 015.101 015.041 015.091	Transfer to Recycled Wood Storage Piles Recycled Wood Storage Piles Transfer to Biomass Fuel Storage Piles Biomass Fuel Storage Piles	VOC	**Total for Recycled Storage and Recycling Plant Sources***	None
			0.64 lb/hr and 2.11 tpy	
		PM_{10}	**Total for Recycled Materials Transfer and Storage Sources**	Good Design, Operating and Maintenance practices
			0.004 lb/hr; and 0.02 tpy	
		$PM_{2.5}$	**Total for Recycled Materials Transfer and Storage Sources**	Good Design, Operating and Maintenance practices
			0.001 lb/hr; and 0.003 tpy	
		opacity	**For Each Source**	Good Design, Operating and Maintenance practices
			20 percent	

* This BACT limit applies to the entire Recycled Material Storage and Recycling Plant Sources which includes Recycled Material Transfer and Storage (above) and Recycled Material Prepartion Table 2.1 B.2.1-Affected Sources, below.

Testing (opacity) [15A NCAC 02Q .0314]

b. If emissions testing is required for opacity emissions, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

c. VOC, PM_{10}, $PM_{2.5}$ and opacity emissions from the Recycled Materials Transfer and Storage Sources in Table 2 B.1.1-Affected Sources, above, shall be controlled as presented in Table 2.1.B.1.2-BACT, above.
d. The Permittee shall monitor the recycled wood delivered by truck from offsite sources from local recycling sites and other construction and demolition sources for quality purposes and these materials, as they enter the plant and before contaminates are removed, shall be weighed for mass tracking purposes.
e. Contaminates and materials unsuitable for particleboard production or solid fuel shall be removed.
f. Materials not suitable for use as a solid fuel, for example metals, shall be removed from the site as recyclable material where possible.
g. Recycled wood shall be stored in an outdoor area separate from the roundwood storage area.
h. Fugitive emissions of PM during transfer of the recycled material to the storage piles (015.091) and wind erosion of the stored material pile (015.041) shall be minimized as practicable.

i. The amounts of raw materials transferred from trucks shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative of DAQ upon request. The logbook shall record the the date and time and the amounts of the recycled materials transferred.
j. The monitoring/recordkeeping requirements in this Section shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

Reporting (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

k. The reporting requirements in this Section shall be sufficient to ensure compliance with 15A NCAC 02D .0530.
l. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 B.1.3.c through j, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

B.2 Recycled Materials Preparation

Table 2.1 B.2.1 – Affected Sources

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Recycled Materials Preparation			
102.011	Mill 1	CD-102.011	One bagfilter (4,520 square feet of filter area)
102.021	Mill 2	CD-102.021	One bagfilter (4,520 square feet of filter area)
102.031	General De-Dusting	CD-102.031	One bagfilter (10,545 square feet of filter area)
102.041	Hammer Mill 1 Extraction	CD-102.041	One bagfilter (3,164 square feet of filter area)
102.051	Hammer Mill 2 Extraction	CD-102.051	One bagfilter (3,164 square feet of filter area)
102.061	Hammer Mill Extraction	CD-102.061	One bagfilter (1,770 square feet of filter area)
102.071a. through 102.071p.	Sifter Extraction	CD-102.071a. through 102.071d.	Four bagfilters (1,770 square feet of filter area, each)
102.081	Recycling Dust Silo Conveyance System	CD-102.081	One bagfilter (427 square feet of filter area)

The following table provides a summary of limits and/or standards for the above emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	$E = 4.10P^{0.67}$ or $E = 55.0(P)^{0.11} - 40$ where; E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521
VOC, PM_{10}, $PM_{2.5}$, opacity	Best Available Control Technology	15A NCAC 02D .0530
HAPs	No applicable requirements	15A NCAC 02D .1111 (40 CFR Part 63 Subpart DDDD)
Odors	**State Enforceable Only** Odorous emissions must be controlled - See Section 2.2 A.1.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0515: PARTICULATE EMISSIONS FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources that are discharged into the atmosphere shall not exceed an allowable emission rate as calculated by the following equations:

Process Rate	Allowable Emission Rate Equation
Less than or equal to 30 tons per hour	$E = 4.10 \times P^{0.67}$
Greater than 30 tons per hour	$E = 55.0(P)^{0.11} - 40$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring [15A NCAC 02Q .0314]

c. Particulate matter emissions from the emission sources in Table 2.1 B.2.1-Affected Sources, above, shall be controlled as presented.
d. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. a monthly visual inspection of the systems' ductwork and material collection units for leaks; and
   ii. an annual (for each 12-month period following the initial inspection) internal inspection of the bagfilters' structural integrity.

Recordkeeping [15A NCAC 02Q .0314]

e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection;
   iii. the results of any maintenance performed on any control device; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

Reporting [15A NCAC 02Q .0314]

f. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.
g. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section 2.1 B.2.1.c through e, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring [15A NCAC 02Q .0314]

c. To ensure compliance, the Permittee shall observe on a weekly basis, the following emission points for any visible emissions above normal:

Emission Source Description and ID No.	Emission Point ID No.
Mill 1 102.011	102.01
Mill 2 102.021	
General De-Dusting 102.031	
Hammer Mill 1 Extraction 102.041	
Hammer Mill 2 Extraction 102.051	
Hammer Mill Extraction 102.061	
Sifter Extraction 102.017a through p	
Recycling Dust Silo Conveyance System 102.081	102.06

The weekly observations must be made for each week of the calendar year period to ensure compliance with this requirement. The Permittee shall establish "normal" for these sources in the first 30 days following the beginning of operation. If visible emissions from this source are observed to be above normal, the Permittee shall either:

i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given above.

Recordkeeping [15A NCAC 02Q .0314]

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

Reporting [15A NCAC 02Q .0314]

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section 2.1 B.2.2.c and d, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded for the Recycled Materials Preparation Sources. These BACT limits shall apply at all times.

:

Table 2.1 B.2.2 – BACT

Emission Source ID No.	Emission Source Description	Pollutants	Emission Limits	Control Technology
Recycled Materials Preparation				
102.011 102.021 102.031 102.041 102.051 102.061 102.071a. though 102.071p. 102.081	Mill 1 Mill 2 General De-Dusting Hammer Mill 1 Extraction Hammer Mill 2 Extraction Hammer Mill Extraction Sifter Extraction Recycling Dust Silo Conveyance System	VOC	**Total for the Recycled Material Storage and Recycling Plant Sources***	None
			0.64 lb/hr and 2.11 tpy	
		PM_{10}	**For Each Source**	Bagfilter Good Design, Operating and Maintenance practices
			0.002 gr/dscf	
			Total for Recycled Materials Preparation Sources	
			2.83 lb/hr and 12.38 tpy	
		$PM_{2.5}$	**Total for Recycled Materials Preparation Sources**	Bagfilter Good Design, Operating and Maintenance practices
			1.13 lb/hr and 4.95 tpy	
		Opacity	**For Each Source**	Bagfilter Good Design, Operating and Maintenance practices
			20 percent	

* This BACT limit applies to the entire Recycled Material Storage and Recycling Plant Sources which includes Recycled Material Transfer and Storage Table 2.1 B.1.1-Affected Sources and Recycled Materials Prepartion, above.

Testing (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

b. If emissions testing is required for VOC, PM_{10}, $PM_{2.5}$, and opacity emissions, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

c. VOC, PM_{10}, $PM_{2.5}$ and opacity from the Recycled Materials Preparation Sources in Table 2.1 B.2.1-Affected Sources, above, shall be controlled as presented in Table 2.1 B.2.2- BACT, above.

d. The monitoring/recordkeeping requirements in Sections 2.1 B.2.1.c through e, above, and 2.1 B.2.2.c and d, above, shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

Reporting (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

e. The Permittee shall submit the results of any maintenance performed on the control devices Table 2.1 B.2.2- BACT ,above, within 30 days of a written request by the DAQ.

~~f.~~ The reporting requirements in Sections 2.1 B.2.1.f and g (above) and 2.1 B.2.2.e (above) shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

C. Material Drying Sources:

C.1 Fuel Conveyance

Table 2.1 C.1.1 – Affected Sources

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Fuel Conveyance System			
105.021	Conveyance enclosed system for fuel to the surface layer drying system	CD-105.021	One bagfilter (427 square feet of filter area)
105.031	Conveyance enclosed system for fuel to the core layer drying system	CD-105.031	One bagfilter (427 square feet of filter area)

The following table provides a summary of limits and/or standards for the above emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	$E = 4.10P^{0.67}$ or $E = 55.0(P)^{0.11} - 40$ where; E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521
VOC, PM_{10}, $PM_{2.5}$, opacity	Best Available Control Technology	15A NCAC 02D .0530
HAPs	No applicable requirements	15A NCAC 02D .1111 (40 CFR Part 63 Subpart DDDD)
Odors	**State Enforceable Only** Odorous emissions must be controlled - See Section 2.2 A.1.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0515: PARTICULATE EMISSIONS FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources that are discharged into the atmosphere shall not exceed an allowable emission rate as calculated by the following equations:

Process Rate	Allowable Emission Rate Equation
Less than or equal to 30 tons per hour	$E = 4.10 \times P^{0.67}$
Greater than 30 tons per hour	$E = 55.0(P)^{0.11} - 40$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring [15A NCAC 02Q .0314]

c. Particulate matter emissions from the emission sources in Table 2.1 C.1.1-Affected Sources, above, shall be controlled as presented.
d. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the

manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

i. a monthly visual inspection of the system ductwork and material collection units for leaks; and
ii. an annual (for each 12-month period following the initial inspection) internal inspection of the bagfilter's structural integrity.

Recordkeeping [15A NCAC 02Q .0314]

e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection;
   iii. the results of any maintenance performed on any control device; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

Reporting [15A NCAC 02Q .0314]

f. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.
g. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section 2.1 C.1.1.c through e, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring [15A NCAC 02Q .0314]

c. To ensure compliance, the Permittee shall observe on a weekly basis, the following emission points for any visible emissions above normal:

Emission Source Description and ID No.	Emission Point ID No.
Conveyance enclosed system for fuel to the surface layer drying system	105.021
Conveyance enclosed system for fuel to the core layer drying system	105.031

The weekly observations must be made for each week of the calendar year period to ensure compliance with this requirement. The Permittee shall establish "normal" for these sources in the first 30 days following the beginning of operation. If visible emissions from this source are observed to be above normal, the Permittee shall either:

i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given above.

Recordkeeping [15A NCAC 02Q .0314]

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

Reporting [15A NCAC 02Q .0314]

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section 2.1 C.1.2.c and d, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded for emissions units included as Fuel Conveyance System Sources. These BACT limits shall apply at all times.

Table 2.1 C.1.2 – BACT

Emission Source ID No.	Emission Source Description	Pollutants	Emission Limits	Control Technology
Fuel Conveyance System				
105.021 105.031	Conveyance enclosed system for fuel to the surface layer drying system Conveyance enclosed system for fuel to the core layer drying system	VOC	**For Each Source** 0.14 lb/hr and 0.63 tpy	None
		PM_{10}	**For Each Source** 0.002 gr/dscf 0.04 lb/hr and 0.18 tpy	Bagfilter Good Design, Operating and Maintenance practices
		$PM_{2.5}$	**For Each Source** 0.001 gr/dscf 0.02 lb/hr and 0.07 tpy	Bagfilter Good Design, Operating and Maintenance practices
		opacity	**For Each Source** 20 percent	Bagfilter Good Design, Operating and Maintenance practices

Testing (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

b. If emissions testing is required for VOC, PM_{10}, $PM_{2.5}$, and opacity emissions, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

c. VOC, PM_{10}, $PM_{2.5}$ and opacity from the Fuel Conveyance System Sources in Table 2.1.C.1.1-Affected Sources, above, shall be controlled as presented in Table 2.1 C.1.2-BACT, above.

d. The monitoring/recordkeeping requirements in Sections 2.1 C 1.1.c through e, above, and 2.1 C 1.2.c and d, above, shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

Reporting (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

e. The Permittee shall submit the results of any maintenance performed on the control devices Table 2.1 C.1.2-BACT, above, within 30 days of a written request by the DAQ.

f. The reporting requirements in Sections 2.1 C.1.1.f and g, above, and 2.1 C.1.2.e, above, shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

C.2 Combined Biomass Energy Recovery Furnace with Core and Surface Layer Dryers

Table 2.1 C.2.1 – Affected Sources

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description	Emission Point ID No.
Biomass Energy Recovery Furnace and Surface Layer Dryer				
107.011 109.011 109.012	Natural gas-fired with low NOx burners (155 million Btu per hour maximum rated heat input) biomass-fired suspension burner (92 million Btu per hour reciprocating grate maximum rated heat input) Biomass Energy Recovery Furnace (ERF) [ID No. 107.011] exhausting to the: Natural gas/wood dust-fired rotary Surface Layer Dryer [ID No. 109.012] with low NOx burners (103 million Btu per hour heat input capacity) [ID No. 109.011] (Normal Operation)	CD-108.01 CD-108.02	Wet Electrostatic Precipitator Regenerative Thermal Oxidizer	108.01
	Natural gas-fired with low NOx burners (155 million Btu per hour maximum rated heat input) biomass-fired suspension burner (92 million Btu per hour reciprocating grate maximum rated heat input) Biomass Energy Recovery Furnace (ERF) [ID No. 107.011] (Start-up, Shutdown)	CD-108.01	Wet Electrostatic Precipitator NA/Venting directly to Atmosphere	107.012 107.011
	Natural gas/wood dust-fired rotary Surface Layer Dryer [ID No. 109.012] with low NOx burners (103 million Btu per hour heat input capacity) [ID No. 109.011] (Start-up, Shutdown)	NA	NA/Venting directly to Atmosphere	109.011 109.012
Core Layer Dryer				
109.021 109.022	Natural gas/wood dust-fired rotary Core Layer Dryer [ID No. 109.022] with low NOx burners (137 MMBtu/hr heat input capacity)	CD-108.01 CD-108.02	Wet Electrostatic Precipitator Regenerative	108.01

	[ID No. 109.021] (Normal Operation)		Thermal Oxidizer	
	Natural gas/wood dust-fired rotary Core Layer Dryer [ID No. 109.022] with low NOx burners (137 MMBtu/hr heat input capacity) [ID No. 109.021] (Start-up, Shutdown)	NA	NA/Venting directly to Atmosphere	109.021 109.022

The following table provides a summary of limits and/or standards for the above emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	$E = 4.10P^{0.67}$ when P<30 tons per hour Or $E = 55.0P^{0.11}$ when P≥30 tons per hour where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
NOx, CO, VOC, $PM_{2.5}$, PM_{10}, GHGs,	Best Available Control Technology For Facility-wide GHGs - See Section 2.2 A.1.1	15A NCAC 02D .0530
HAPs	National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products (reduce emissions of total HAP, measured as THC (as carbon), by 90 percent) See Section 2.2 A.1.3	15A NCAC 02D .1111 (40 CFR Part 63 Subpart DDDD)
Odors	**State Enforceable Only** Odorous emissions must be controlled - See Section 2.2 A.1.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0515: PARTICULATE EMISSIONS FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources that are discharged into the atmosphere shall not exceed an allowable emission rate as calculated by the following equations:

Process Rate	Allowable Emission Rate Equation
Less than or equal to 30 tons per hour	$E = 4.10 \times P^{0.67}$
Greater than 30 tons per hour	$E = 55.0(P)^{0.11} - 40$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.
c. The testing requirements in the Section 2.1 C.2.4.c, below, shall be followed in order to demonstrate compliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0314]

d. Particulate matter emissions from the emission sources in Table 2.1 C.2.1– Affected Sources, above, shall be controlled as presented**.**
e. The monitoring, recordkeeping and reporting requirements required in the Section 2.1 C.2.4 d through l-BACT,

below, shall be followed in order to demonstrate compliance with 15A NCAC 02D .0515.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from the sources in Table 2.1 C.2.1– Affected Sources, above, shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0314]

c. No monitoring, recordkeeping or reporting is required for sulfur dioxide emissions from the firing of natural gas/wood dust in these sources.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from the sources in Table 2.1 C.2.1– Affected Sources, above, shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

c. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the opacity limit of 20% on an annual basis with a Method 9 test and observing the emissions point (this stack is shared by the Biomass ERF (**ID No. 107.011**), Surface layer dryer (**ID No. 109.012**), Core layer dryer (**ID No. 109.022**), Particleboard press (**ID No. 111.021**), Star coolers (**ID No. 112.011**) and Diagonal saw extraction (**ID No. 112.021**).
Visual emissions testing shall be conducted in accordance with the following:
   i. The Permittee shall perform testing in accordance with 15A NCAC 02D .2600.
   ii. The Biomass ERF (**ID No. 107.011**), Surface layer dryer (**ID No. 109.012**), Core layer dryer (**ID No. 109.022**), Particleboard press (**ID No. 111.021**), Star coolers (**ID No. 112.011**) and Diagonal saw extraction (**ID No. 112.021**) shall all be in operation during source testing. The Permittee shall be responsible for ensuring, within the limits of practicality, that the equipment or processes being tested are operated at or near their maximum normal production rate or at a lesser rate if specified by the Director or his delegate.
   iii. Testing shall be completed within 180 days of initial start-up of these sources.The Permittee shall submit a written report of the test(s) results to the Regional Supervisor, DAQ within 60 days of completion of the test.

Monitoring [15A NCAC 02Q .0314]

d. To ensure compliance, once per day the Permittee shall observe the following emission point for any visible emissions above normal:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description	Emission Point ID No.
Biomass Energy Recovery Furnace and Surface Layer Dryer				

107.011 109.011 109.012	Natural gas-fired with low NOx burners (155 million Btu per hour maximum rated heat input) biomass-fired suspension burner (92 million Btu per hour reciprocating grate maximum rated heat input) Biomass Energy Recovery Furnace (ERF) [ID No. 107.011] Natural gas/wood dust firedrotary Surface Layer Dryer [ID No. 109.012] with low NOx burners (103 million Btu per hour heat input capacity) [ID No. 109.011]	CD-108.01 CD-108.02	Wet Electrostatic Precipitator Regenerative Thermal Oxidizer	108.01*
Core Layer Dryer				
109.021 109.022	Natural gas/wood dust fired rotary Core Layer Dryer [ID No. 109.022] with low NOx burners (137 MMBtu/hr heat input capacity) [ID No. 109.021]	CD-108.01 CD-108.02	Wet Electrostatic Precipitator Regenerative Thermal Oxidizer	108.01*

*This stack is shared by the Biomass ERF (**ID No. 107.011**), Surface layer dryer (**ID No. 109.011/109.012**), Core layer dryer (**ID No. 109.021/109.022**), Particleboard press (**ID No. 111.021**), Star coolers (**ID No. 112.011**) and Diagonal saw extraction (**ID No. 112.021**) and is subject to daily observations associated with these sources.

The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall establish "normal" for these sources in the first 30 days following the beginning of operation. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. The Permittee shall establish "normal" for this/these source(s) in the first 30 days of beginning operation. If visible emissions from this/these source(s) are observed to be above normal, the Permittee shall either:

i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in condition a. above.

Recordkeeping [15A NCAC 02Q .0314]

e. The results of the monitoring for visible emissions shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. To ensure quality, entries in the logbook should be signed by personnel responsible for the effective operation of the units in the particleboard mill and their air pollution control devices. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

Reporting [15A NCAC 02Q .0314]

f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 C.2.3.d and e, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded for emissions units included as Material Drying Sources. These BACT limits shall apply at all times.

Table 2.1 C.2.2 – BACT

Emission Source	Pollutants	Emission Limits*	Control Technology
Biomass Energy Recovery Furnace and Surface and Core Layer Dryers			
Biomass Combustion and Chip Drying: Natural gas/ biomass-fired Biomass Energy Recovery Furnace (ERF) (ID No. 107.011) exhausting to Natural gas/ biomass-fired rotary Surface Layer Dryer (ID No. 109.011/109.012) and Natural gas/ biomass-fired rotary Core Layer Dryer (ID No. 109.021/109.022)	NOx	3.11 lbs/ODT (3-hour average) from the combined biomass furnace and dryers	Low NO_X burners for natural gas burners FGR and Staged Combustion Good Combustion, Operating and Maintenance practices
	CO	0.56 lb/ODT (3-hour average) from the combined biomass furnace and dryers	Thermal Oxidation (RTO) (approx. 80% CO control) [shared downstream controls WESP and RTO] Good Design, Combustion, Operating and Maintenance practices Staged combustion and FGR
	VOC as carbon	0.46 lb/ODT (3-hour average) from the combined biomass furnace and dryers	Thermal Oxidation (RTO) [shared downstream controls WESP and RTO] Good Combustion, Operating and Maintenance practices Compliance with PCWP MACT (90% reduction in total HAPs)
	PM_{10}	0.17 lbs/ODT (3-hour average) from the combined biomass furnace and dryers	WESP [shared downstream controls WESP and RTO] Good Combustion, Operating and Maintenance practices
	$PM_{2.5}$	0.17 lbs/ODT (3-hour average) from the combined biomass furnace and dryers	
	opacity	20 percent	Good Design, Operating and Maintenance practices
	Facility wide GHGs **See Section 2.2 A.1**	388,187 tpy CO2e (12-month rolling average) (total for facility)	Fuel Substitution (use of biomass fuel is considered BACT for GHGs; also use of natural gas (low carbon intensity) Good Combustion, Operating and Maintenance practices

* BACT emission limits are a total from the ERF (firing wood and/or natural gas) **(ID No. 107.011)** and for the two dryers; the surface layer dryer (with ERF hot gas and/or natural gas) and the core layer dryer (firing natural gas) **(ID Nos. 109.011/109.012 and 109.021/109.022**).

Testing (PM, PM_{10}, $PM_{2.5}$, VOC, CO, NOx, opacity) [15A NCAC 02Q .0314]

b. If emissions testing is required for PM, PM_{10}, $PM_{2.5}$, VOC, CO, NOx, and opacity the testing shall be performed in accordance with General Condition 17.

c. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limits for **PM10, PM2.5, VOC, CO, NOx** on an annual basis by testing the Material Drying Sources in Table 2.1 C.2.2 - BACT, above. If the results of these tests are less than 80 percent of the emission limits, the Permittee shall be required to stack test only once every five years following the previous stack test. Testing of the Material Drying Sources in Table 2.1 C.2.2 - BACT, above, controlled by the combined WESP **(ID No. CD-108.01)** and RTO **(ID No. CD-108.02)** shall be conducted in accordance with the following:

i. The Permittee shall perform testing in accordance with 15A NCAC 02D .2600.

ii. The Permittee shall establish a minimum secondary voltage in kilovolts, the minimum current in milliamps for each field and the water flow rate in gallons per minute of the WESP during testing, using procedures specified in 40 CFR 63.2262(h), the MACT DDDD.
iii. The Permittee shall establish minimum firebox temperature of the RTO during testing, using procedures specified in 40 CFR 63.2262(k), the MACT DDDD.
iv. The Biomass Energy Recovery Furnace (**ID No. 107.011**), the Surface Layer Dryer (**ID No. 109.011/109.012**) and the Core Layer Dryer **(ID No. 109.021/109.022)** shall all be in operation during source testing. The Permittee shall be responsible for ensuring, within the limits of practicality, that the equipment or processes being tested are operated at or near their maximum normal production rate or at a lesser rate if specified by the Director or his delegate.
v. Testing shall be completed within 180 days of initial start-up of Material Drying Sources in Table C.2.2 - BACT, above, controlled by the combined WESP **(ID No. CD-108.01)** and RTO **(ID No. CD-108.02)**. The Permittee shall submit a written report of the test(s) results to the Regional Supervisor, DAQ within 60 days of completion of the test.

Monitoring (PM$_{10}$, PM$_{2.5}$, VOC, CO, NOx, opacity) [15A NCAC 02Q .0314]

d. PM10, PM2.5, VOC, CO, NOx, and opacity from the Combined Biomass Energy Recovery Furnace with Core and Surface Layer Dryers in Table 2.1 C.2.1-Affected Sources, above, shall be controlled as presented in Table 2.1 C.2.2-BACT, above.

Monitoring Combined Biomass Energy Recovery Furnace with Core and Surface Layer Dryers

e. To ensure compliance and effective operation, the Permittee shall perform inspections and maintenance of the wet electrostatic precipitator (**ID No. CD-108.01**), the RTO (**ID No. CD-108.02**), the two dryers; the surface layer dryer (with ERF) (**ID No. 107.011 and 109.011/109.012**) and the core layer dryer (**ID Nos. 109.021/109.022**). At a minimum, the inspection and maintenance requirement shall include the following:
i. perform inspections and maintenance as recommended by the manufacturer.
ii. an annual (for each 12-month period following the initial inspection) internal inspection of the two dryers; the surface layer dryer (with ERF) (**ID No. 107.011 and 109.012**) and the core layer dryer (**ID Nos. 109.022**) and associated burners. The annual inspection of a dryer may be delayed until the next cold outage.

Monitoring Wet electrostatic precipitator (ID No. CD-108.01)

f. To ensure compliance and the effective operation of the wet electrostatic precipitator (**ID No. CD-108.01**), the Permittee shall:
i. perform inspections and maintenance as recommended by the manufacturer.
ii. operate the wet electrostatic precipitator with no more than one field in a wash cycle at a time;
iii. maintain proper operation of the WESP's automatic voltage control (AVC) to assure operation of the WESP within the ranges determined in the last approved performance test.
iv. The Permittee shall maintain a minimum water injection rate to the wet electrostatic precipitator of the gallons per minute (gpm, 3-hour block average) as set in the last approved performance test.

Monitoring RTO (ID No. CD-108.02)

g. To ensure compliance and the effective operation of the RTO (**ID No. CD-108.02**), the Permittee shall:
i. perform inspections and maintenance as recommended by the manufacturer;
ii. operate the RTO at the minimum firebox temeprature;
iii. monitor and record minimum firebox temeprature. The minimum firebox temperature (3-hour block averages) in degrees F as set in the last approved performance test.
iv. If the Permittee re-evaluates compliance with the emission limit in condition a at less than the minimum firebox temperature previously established, the Permittee shall submit a permit application to the DAQ containing the revised operating parameters and upon approval maintain the parameters in the associated operating ranges contained therein.

Recordkeeping (PM, PM10, PM2.5, VOC, CO, NOx, opacity) [15A NCAC 02Q .0314]

h. The results of inspection and maintenance of the wet electrostatic precipitator (**ID No. CD-108.01**), the RTO **(ID No. CD-108.02)**, two dryers; the surface layer dryer (with ERF) (**ID Nos. 109.012 and 107.011**) and the core layer dryer (**ID No. 109.022**) shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative of DAQ upon request. The logbook shall record the following i. the date and time of each recorded action;
   ii. the results of each inspection;
   iii. the results of any maintenance performed on wet electrostatic precipitator (**ID No. CD-108.01**), the RTO **(ID No. CD-108.02)**, two dryers; the surface layer dryer (with ERF) (ID Nos. 109.012 and 107.011) and the core layer dryer (**ID Nos. 109.022**);
   iv. any variance from manufacturer's recommendations, if any, and corrections made;
   v. the water injection flow rate, voltage and current (3–hour block averages) for the WESP; and
   vi. the firebox temperature for the RTO.

Reporting (PM, PM10, PM2.5, VOC, CO, NOx, opacity)

i. The Permittee shall submit the results of any maintenance performed on the control devices in Tables 2.1 C.2.1 – Affected Sources and 2.1.C.2.2 – BACT, above, and/or two dryers; the surface layer dryer (with ERF) (ID Nos. 109.012 and 107.011) and the core layer dryers (**ID No. 109.022**) within 30 days of a written request by the DAQ.
j. Reporting requirements in Section 2.1 C.2.3.f, above, and this Section shall be sufficient to ensure compliance with 15A NCAC 02D .0530, and;
k. Postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June, the annual production rate of particleboard in MSF ¾" basis and the annual production rate must be calculated for each of the six twelve-month periods over the previous seventeen months shall be reported to the Regional Supervisor, Division of Air Quality, and;
l. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 C.2.4.d through h above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

D. Dry Chip Preparation Sources:

Table 2.1 D.1 – Affected Sources

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
110.011	High pressure transport screening dust to Silo 168	CD-110.011	One bagfilter (427 square feet of filter area)
110.021	High pressure transport oversize material	CD-110.021	One bagfilter (264 square feet of filter area)
110.031	Wing Beater Mill (PSKM) extraction	CD-110.031	One bagfilter (1,431 square feet of filter area)
110.041	Ecopulser 1 extraction	CD-110.041	One bagfilter (439 square feet of filter area)
110.051	Ecopulser 2 extraction	CD-110.051	One bagfilter (439 square feet of filter area)
110.061	Conveyance system core layer material to Silo 165	CD-110.061	One bagfilter (427 square feet of filter area)
110.071	General De-dusting	CD-110.071	One bagfilter (12,051 square feet of filter area)
110.091	Extraction Heavy Goods Separator Extraction	CD-110.091	One bagfilter (3,867 square feet of filter area)
110.101	Extraction Heavy Goods Separator Extraction	CD-110.101	One bagfilter (3,867 square feet of filter area)
110.111	Hammer Mill Extraction	CD-110.111	One bagfilter (2,360 square feet of filter area)

The following table provides a summary of limits and/or standards for the above emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	$E = 4.10P^{0.67}$ or $E = 55.0(P)^{0.11} - 40$ where; E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521
VOC, PM_{10}, $PM_{2.5}$, opacity	Best Available Control Technology	15A NCAC 02D .0530
HAPs	No applicable requirements	15A NCAC 02D .1111 (40 CFR Part 63 Subpart DDDD)
Odors	**State Enforceable Only** Odorous emissions must be controlled - See Section 2.2 A.1.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0515: PARTICULATE EMISSIONS FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources that are discharged into the atmosphere shall not exceed an allowable emission rate as calculated by the following equations:

Process Rate	Allowable Emission Rate Equation
Less than or equal to 30 tons per hour	$E = 4.10 \times P^{0.67}$
Greater than 30 tons per hour	$E = 55.0(P)^{0.11} - 40$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring [15A NCAC 02Q .0314]

c. Particulate matter emissions from these emission sources in Table 2.1 D.1 – Affected Sources, above, shall be controlled as presented.
d. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. a monthly visual inspection of the systems' ductwork and material collection units for leaks; and
   ii. an annual (for each 12-month period following the initial inspection) internal inspection of the bagfilters' structural integrity.

Recordkeeping [15A NCAC 02Q .0314]

e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection;
   iii. the results of any maintenance performed on any control device; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

Reporting [15A NCAC 02Q .0314]

f. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.
g. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in in Section 2.1 D.1.c through e, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from the sources in Table 2.1 D.1 – Affected Sources, above, shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring [15A NCAC 02Q .0314]

c. To ensure compliance the Permittee shall observe, on a weekly basis, the following emission ponits for any visible emissions above normal:

Emission Source Description and ID No.	Emission Point ID No.
High pressure transport screening dust to Silo 168	110.011
High pressure transport oversize material	110.021
Wing Beater Mill (PSKM) extraction	110.031
Ecopulser 1 extraction	110.041
Ecopulser 2 extraction	110.051
Conveyance system core layer material to Silo 165	110.061

Emission Source Description and ID No.	Emission Point ID No.
General De-dusting	110.071
Extraction Heavy Goods Separator Extraction	110.091
Extraction Heavy Goods Separator Extraction	110.101
Hammer Mill Extraction	110.111

The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. The Permittee shall establish "normal" for these sources in the first 30 days following the beginning of operation. If visible emissions from these sources are observed to be above normal, the Permittee shall either:

i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in condition a., above.

Recordkeeping [15A NCAC 02Q .0314]

d. The results of the monitoring for visible emissions shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. To ensure quality, entries in the logbook should be signed by personnel responsible for the effective operation of the units in the particleboard mill and their air pollution control devices. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

Reporting [15A NCAC 02Q .0314]

e. The Permittee shall submit a summary report of monitoring and record keeping activities given in Section 2.1 D.2.c and d, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded for emissios units included as Dry Chip Preparation Sources. These BACT limits shall apply at all times.

Table 2.1 D.2 – BACT

Emission Source ID No.	Emission Source Description	Pollutants	Emission Limits	Control Technology
Dry Chip Preparation				
110.011 110.021 110.031 110.041 110.051 110.061 110.071 110.091 110.101 110.111	High pressure transport screening dust to Silo 168 High pressure transport oversize material Wing Beater Mill (PSKM) extraction Ecopulser 1 extraction Ecopulser 2 extraction Conveyance system core layer material to Silo 165 General De-dusting Extraction Heavy Goods Separator Extraction Extraction Heavy Goods Separator Extraction Hammer Mill Extraction	VOC	**Total for Dry Chip Preparation Sources***	Good Design, Operating and Maintenance practices
			0.31 lb/hr and 1.38 tpy	
		PM_{10}	**For Each Source**	Bagfilter Good Design, Operating and Maintenance practices
			0.0014 gr/dscf	
			Total for Dry Chip Preparation Sources	
			2.41 lb/hr and 10.56 tpy	
		$PM_{2.5}$	**For Each Source**	Bagfilter Good Design, Operating and Maintenance practices
			0.0008 gr/dscf	
			Total for Dry Chip Preparation Sources	
			1.07 lb/hr and 4.69 tpy	
		opacity	**For Each Source**	Bagfilter Good Design, Operating and Maintenance practices
			20 percent	

* This BACT limit applies to the entire Dry Chip Preparation Sources, above, and Table 2.1 D.1.2-BACT, below.

Testing (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

b. If emissions testing is required for VOC, PM_{10}, $PM_{2.5}$, and opacity emissions, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

c. VOC, PM_{10}, $PM_{2.5}$ and opacity from the Material Preparation Sources in Table 2.1 D.1-Affected Sources, above, shall be controlled as presented in Table 2.1 D.2-BACT, above.

d. The monitoring/recordkeeping requirements in Sections 2.1 D.1.c through e, above, and 2.1 D.2. c and d, above, above, shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

Reporting (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

e. The reporting requirements Sections 2.1 D.1.f and g, above, and 2.1 D.2.e, above, shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

E. Mattress Forming and Pressing Sources:

E.1 Particleboard Press Thermal Oil Heater

Table 2.1 E.1.1 – Affected Sources

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Particleboard Press Thermal Oil Heater			
111.011	Natural gas-fired Backup Thermal Oil Heater with low NOx burners (30 MMBtu/hr heat input capacity) for Particleboard Press	NA	NA

Note: The primary heat for the Lamination process and Paticleboard production is provided by the Energy Recovery Furnace's FGR system sidestream which indirectly heats the free-standing indirect-fired Thermal oil heater (41 MMBtu/hr heat input).

The following table provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	0.39 pounds per million Btu heat input	15A NCAC 02D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity when averaged over a six-minute period	15A NCAC 02D .0521
NA	Monthly fuel combustion recordkeeping requirements	15A NCAC 02D .0524 (40 CFR 60, Subpart Dc)
NO_x, CO, VOC, PM_{10}, $PM_{2.5}$, opacity, GHGs	Best Available Control Technology For Facility-wide GHGs - See Section 2.2 A.1.1	15A NCAC 02D .0530
HAPs	One time initial energy assessment Annual tune-ups - No oxygen autotrim; or Five year tune-ups - With oxygen autotrim	15A NCAC 02D .1111 (40 CFR Part 63 Subpart DDDDD)
Odors	**State Enforceable Only** Odorous emissions must be controlled - See Section 2.2 A.1.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

a. Emissions of particulate matter from the combustion of natural gas that are discharged from the source in Table 2.1 E.1.1– Affected Sources, above, into the atmosphere shall not exceed 0.39 pounds per million Btu heat input.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0314]

c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas in this source.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from the source in Table 2.1.E.1.1– Affected Sources, above, shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0314]

c. No monitoring, recordkeeping or reporting is required for sulfur dioxide emissions from the the firing of natural gas in this source.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from the source in Table 2.1 E.1.1– Affected Sources, above, shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0314]

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in this source.

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS (NSPS Subpart Dc)

a. For the Thermal Oil Heater **(ID No. 111.011)** in Table 2.1 E.1.1– Affected Sources, above, the Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524, "New Source Performance Standards (NSPS)" as promulgated in 40 CFR 60, Subpart Dc, "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units," including Subpart A, "General Provisions."

Recordkeeping [15A NCAC 02Q .0314, 40 CFR 60.48c(c)]

b. The Permittee shall record and maintain records of the amounts of each fuel fired during each month. [40 CFR 60.48c(g)(2)] These records shall be maintained by the Permittee for a period of two years following the date of such record. [40 CFR 60.48c(i)]

Reporting/Notifications [15A NCAC 02Q .0314, 40 CFR 60.48c(c), (j)]

c. The Permittee shall submit a notification of the actual date of initial startup of the boiler to the Regional Supervisor, DAQ, postmarked within 15 days after such date. [40 CFR 60.7, 60.48c(a)]

5. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR 63.7485, 63.7490, 63.7499(l)]

a. For the Thermal Oil Heater **(ID No. 111.011)** in Table 2.1 E.1.1– Affected Sources, above, (a new unit designed to burn gas 1 fuels only), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart DDDDD "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" and Subpart A "General Provisions."

Definitions and Nomenclature [40 CFR 63.7575]

b. For the purpose of this permit condition, the definitions and nomenclature contained in 40 CFR 63.7575 shall apply.

40 CFR Part 63 Subpart A General Provisions [40 CFR 63.7565]

c. The Permittee shall comply with the requirements of 40 CFR 63 Subpart A General Provisions according to the applicability of Subpart A to such sources as identified in Table 10 to 40 CFR Part 63, Subpart DDDDD.

Compliance Date [40 CFR 63.7495(a)]

d. The Permittee shall comply with the applicable requirements upon startup of this source.

Notifications [40 CFR 63.7545]

e. As specified in 40 CFR 63.9(b)(4) and (5), the Permittee shall submit an Initial Notification not later than 15 days after the actual date of startup of the affected source. [40 CFR 63.7545(c)]

Work Practice Standards (with oxygen trim option) [15A NCAC 02Q .0314]

f. The Permittee shall conduct a tune-up every five years as specified below:
   i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled or unscheduled shutdown, but the burner must be inspected at least once every 72 months.
   ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
   iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown).
   iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject.
   v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
   vi. Set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up.
   [40 CFR 63.7500(a), 63.7540(a)(10), (a)(12)]

g. For this source, each 5-year tune-up shall be conducted no more than 61 months after the previous tune-up. The initial tune-up shall be conducted no later than 61 months after the initial startup of the source.
   [40 CFR 63.7515(d)]

h. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.[40 CFR 63.7540(a)(13), 63.7515(g)]

i. At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
   [40 CFR 63.7500(a)(3)]

Work Practice Standards (without oxygen trim option) [15A NCAC 02Q .0314]

j. The Permittee shall conduct a tune-up annually as specified below:
   i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled or unscheduled shutdown.
   ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
   iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown).
   iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject.
   v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
   [40 CFR 63.7500(a), 63.7540(a)(10)]

k. For this source, each annual tune-up shall be conducted no more than 13 months after the previous tune-up. The initial tune-up shall be conducted no later than 13 months after the initial startup of the source. [40 CFR 63.7515(d)]

l. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.[40 CFR 63.7540(a)(13), 63.7515(g)]

m. At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
   [40 CFR 63.7500(a)(3)]

Recordkeeping Requirements [15A NCAC 02Q .0314]

n. The Permittee must keep the following:
   i. A copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status, or semiannual compliance report that has been submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.7555(a)(1)]
   ii. Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (A) through (C) below:
      (A) The concentrations of carbon monoxide in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
      (B) A description of any corrective actions taken as a part of the tune-up; and
      (C) The type and amount of fuel used over the 12 months prior to the annual adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
      [40 CFR 63.7540(a)(10)(vi)]
   iii. The associated records for **Section 2.1 E.1.5.e through m,** above.
o. The Permittee shall:
   i. maintain records in a form suitable and readily available for expeditious review;
   ii. keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record; and
   iii. keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records offsite for the remaining 3 years.
   [40 CFR 63.7560, 63.10(b)(1)]

Reporting Requirements [15A NCAC 02Q .0314]

p. The Permittee shall submit compliance reports to the DAQ on an annual basis. The first report shall cover the period beginning on the compliance date specified in condition d. and ending on the earliest December 31st. Subsequent annual reports shall cover the periods from January 1 to December 31. The Permittee shall submit the compliance reports postmarked on or before January 30 of the year following each compliance period. [40 CFR 63.7550(a), (b), 63.10(a)(4), (5)]
q. The compliance report must also be submitted electronically via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/).) You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (http://www.epa.gov/ttn/chief/cedri/index.html), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in §63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI.
   [40 CFR 63.7550(h)(3)]
r. The compliance report must contain the following information:
   i. Company name and address;
   ii. Process unit information, emissions limitations, and operating parameter limitations;
   iii. Date of report and beginning and ending dates of the reporting period;
   iv. Include the date of the most recent tune-up for each unit required according to **Section 2.1 E.1.5.f and j,** above**.** Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown.
   v. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
   [40 CFR 63.7550(a) and (c), Table 9]

6. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded for the Particleboard Press Thermal Oil Heater. These BACT limits shall apply at all times.

Table 2.1 E.1.2 – BACT

Emission Source ID No. and Description	Pollutants	Emission Limits	Control Technology
Thermal Oil Heaters: Natural gas-fired Backup Thermal Oil Heater with low NOx burners (30 MMBtu/hr heat input capacity) for Particleboard Press (ID No. 111.011)	NOx	0.10 lb/MMBtu heat input	Low NO_X burners Good Combustion, Operating and Maintenance practices
	CO	0.02 lb/MMBtu heat input	Good Combustion, Operating and Maintenance practices
	VOC	0.0054 lb/MMBtu heat input	Good Combustion, Operating and Maintenance practices
	PM_{10}	0.0092 lb/MMBtu heat input	Good Combustion, Operating and Maintenance practices
	$PM_{2.5}$	0.0082 lb/MMBtu heat input	Good Combustion, Operating and Maintenance practices
	opacity	20 percent	Good Combustion, Operating and Maintenance practices
	Facility-wide GHGs **See Section 2.2 A.1**	388,187 tpy CO2e (12-month rolling average) (total for facility)	Fuel Substitution (use of natural gas (low carbon intensity) Good Combustion, Operating and Maintenance practices

Testing (NO_x, CO, VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

b. If emissions testing is required for PM_{10}, $PM_{2.5}$, VOC, CO, NOx and opacity the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping (NO_x, CO, VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

c. NO_x, CO, VOC, PM_{10}, $PM_{2.5}$ and opacity emissions from the Thermal Oil Heater in Table 2.1 E.1.1-Affected Sources, above, shall be controlled as presented in Table 2.1 E.1.2-BACT, above.

d. The results of inspection and maintenance activities shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative of DAQ upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection;
   iii. the results of any maintenance performed; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

e. The monitoring and recordkeeping requirements in Section 2.1 E.1.5.f through o, above, of the MACT Subpart DDDDD shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

f. The monitoring and recordkeeping requirements in this Section shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

Reporting (PM_{10}, $PM_{2.5}$, VOC, CO, NOx, opacity) [15A NCAC 02Q .0314]

g. The Permittee shall submit the results of any maintenance performed on the Thermal Oil Heater in Table 2.1 E.1.2 - BACT within 30 days of a written request by the DAQ.

h. The reporting requirements in Section 2.1 E.1.5. p through r, above, of the MACT Subpart DDDDD shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

i. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 E.1.6.c through f, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

E.2 Particleboard Press

Table 2.1 E.2.1 – Affected Sources

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description	Emission Point ID No.
Particleboard Press				
111.021	Particleboard Press	CD 111.021	Wet Scrubber	108.01

The following table provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	$E = 4.10P^{0.67}$ or $E = 55.0(P)^{0.11} - 40$ where; E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity when averaged over a six-minute period	15A NCAC 02D .0521
VOCs, $PM_{2.5}$, PM_{10}, opacity	Best Available Control Technology Production Limit - **424,000 thousand square feet (MSF) (¾" basis)**	15A NCAC 02D .0530
HAPs	National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products (production-based compliance option by emitting less than 0.30 lb of total HAP per thousand square feet of board, ¾" basis) See Section 2.2 A.1.3	15A NCAC 02D .1111 (40 CFR Part 63 Subpart DDDD)
Odors	**State Enforceable Only** Odorous emissions must be controlled - See Section 2.2 A.1.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0515: PARTICULATE EMISSIONS FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from the emission source in Table 2.1 E.2.1 – Affected Sources, above, that are discharged into the atmosphere shall not exceed an allowable emission rate as calculated by the following equations:

Process Rate	Allowable Emission Rate Equation
Less than or equal to 30 tons per hour	$E = 4.10 \times P^{0.67}$
Greater than 30 tons per hour	$E = 55.0(P)^{0.11} - 40$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping [15A NCAC 02Q .0314]

c. Particulate matter emissions from these sources in Table 2.1 E.2.1 – Affected Sources, above, shall be controlled as presented.
d. The monitoring, recordkeeping and reporting requirements required Section 2.1 E.2.3.d through k, below, shall be followed in order to demonstrate compliance with 15A NCAC 02D .0515.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from this source shall not be more than 20 percent opacity when averaged over a six-minute

period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

c. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the opacity limit of 20% on an annual basis with a Method 9 test and observing the emissions point (this stack is shared by the Biomass ERF (**ID No. 107.011**), Surface layer dryer (**ID No. 109.011/109/012**), Core layer dryer (**ID No. 109.021/109.022**), Particleboard press (**ID No. 111.021**), Star coolers (**ID No. 112.011**) and Diagonal saw extraction (**ID No. 112.021**)).

Visual emissions testing shall be conducted in accordance with the following:

i. The Permittee shall perform testing in accordance with 15A NCAC 02D .2600.

ii. The Biomass ERF (**ID No. 107.011**), Surface layer dryer (**ID No. 109.011/109.012**), Core layer dryer (**ID No. 109.021/109/022**), Particleboard press (**ID No. 111.021**), Star coolers (**ID No. 112.011**) and Diagonal saw extraction (**ID No. 112.021**) shall all be in operation during source testing. The Permittee shall be responsible for ensuring, within the limits of practicality, that the equipment or processes being tested are operated at or near their maximum normal production rate or at a lesser rate if specified by the Director or his delegate.

iii. Testing shall be completed within 180 days of initial start-up of these sources .The Permittee shall submit a written report of the test(s) results to the Regional Supervisor, DAQ within 60 days of completion of the test.

Monitoring [15A NCAC 02Q .0314]

d. To ensure compliance, once per day the Permittee shall observe the following emission point for any visible emissions above normal:

Emission Source Description and ID No.	Emission Point ID No.
Particleboard Press	108.01*

*This stack is shared by the Biomass ERF (**ID No. 107.011**), Surface layer dryer (**ID No. 109.011**), Core layer dryer (**ID No. 109.021**), Particleboard press (**ID No. 111.021**), Star coolers (**ID No. 112.011**) and Diagonal saw extraction (**ID No. 112.021**) and is subject to daily observations associated with these sources.

The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall establish "normal" for these sources in the first 30 days following the beginning of operation. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. The Permittee shall establish "normal" for this/these source(s) in the first 30 days of beginning operation. If visible emissions from this/these source(s) are observed to be above normal, the Permittee shall either:

i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or

ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in condition a., above.

Recordkeeping [15A NCAC 02Q .0314]

e. The results of the monitoring for visible emissions shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. To ensure quality, entries in the logbook should be signed by personnel responsible for the effective operation of the units in the particleboard mill and their air pollution control devices. The logbook shall record the following:

i. the date and time of each recorded action;

ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and

iii. the results of any corrective actions performed.

Reporting [15A NCAC 02Q .0314]

f. The Permittee shall submit a summary report of monitoring and record keeping activities given in Section 2.1 E.2.2.d and e, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded for emissions units included as the Particleboard Press. These BACT limits shall apply at all times.

Table 2.1 E.2.2 – BACT

Emission Source ID No. and Description	Pollutants	Emission Limits	Control Technology
Particleboard Press (ID No. 111.021)	VOC	0.455 lb/MSF ¾" board (3-hour average)	Good Design, Operating and Maintenance practices for press Compliance with PCWP MACT (production based standard for process units meeting compliance options without a control device)
	PM_{10}	0.235 lb/MSF ¾" board (3-hour average)	Wet Scrubber (high-efficiency scrubber) Good Design, Operating and Maintenance practices for press
	$PM_{2.5}$	0.235 lb/MSF ¾" board (3-hour average)	
	opacity	20 percent	Good Design, Operating and Maintenance practices

Testing (VOC, PM_{10}, $PM_{2.5}$, , opacity) [15A NCAC 02Q .0314]

b. If emissions testing is required for VOC, PM_{10}, $PM_{2.5}$ and opacity the testing shall be performed in accordance with General Condition 17.

c. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limits for VOC, PM_{10}, $PM_{2.5}$ on an annual basis by testing the Particleboard Press in Table 2.1 E.2.2 - Affected Source–BACT, above. If the results of these tests are less than 80 percent of the emission limits, the Permittee shall be required to stack test only once every five years following the previous stack test. Testing of Particleboard Press in Table 2.1 E.2.2 – BACT, above, controlled by the Wet Scrubber **(ID No. CD-111.021)** shall be conducted in accordance with the following:
   i. The Permittee shall perform testing in accordance with 15A NCAC 02D .2600.
   ii. The Permittee shall establish the pressure drop in inches of water and recirculating liquid flow rate in gallons per minute of the scrubber during testing.
   iii. The Particleboard Press (**ID No. 111.021**) shall all be in operation during source testing. The Permittee shall be responsible for ensuring, within the limits of practicality, that the equipment or processes being tested are operated at or near their maximum normal production rate or at a lesser rate if specified by the Director or his delegate.
   iv. Testing shall be completed within 180 days of initial start-up of the Particleboard Press in Table 2.1 E.2.2 – BACT, above, controlled by the Wet Scrubber (**ID No. CD-111.021**). The Permittee shall submit a written report of the test(s) results to the Regional Supervisor, DAQ within 60 days of completion of the test.

Monitoring (VOC, PM_{10}, $PM_{2.5}$, , opacity) [15A NCAC 02Q .0314]

d. VOC, PM_{10}, $PM_{2.5}$ and opacity from the Particleboard Press in Table 2.1 E.2.1 - Affected Source, above, shall be controlled as presented in Table 2.1 E.2.2-BACT, above.

Monitoring Particleboard Press (VOC, PM_{10}, $PM_{2.5}$, , opacity) [15A NCAC 02Q .0314]

e. To ensure compliance and effective operation, the Permittee shall perform inspections and maintenance of the Particleboard Press **(ID No. 111.021)**. At a minimum, the inspection and maintenance requirement shall include the following:
   i. perform inspections and maintenance as recommended by the manufacturer, and
   ii. an annual (for each 12-month period following the initial inspection) internal inspection of the Particleboard Press for structural integrity. The annual inspection of the Particleboard Press may be delayed until the next

cold outage.

Monitoring Wet Scrubber (PM_{10}, $PM_{2.5}$, opacity)

f. PM10, PM2.5 and opacity from this Particleboard Press **(ID No. 111.021)** shall be controlled by the wet scrubber as described in Table 2.1.E.2.2 - BACT, above.
g. The Permittee shall perform inspections and maintenance as recommended by the manufacturer.
h. The Permittee shall install, operate, and maintain instrumentation on the scrubber identified in Table 2.1 E.2.1 – Affected Sources, above, to continuously monitor the parameters and maintain the parameters in the associated operating ranges. If the Permittee re-evaluates compliance with the emission limit in condition a. at parameter ranges outside of those in the table, below, the Permittee shall submit a permit application to the DAQ containing the revised operating parameters and upon approval maintain the parameters in the associated operating ranges contained therein.

Parameter	Control Device ID No.	Operating range for the control device
Pressure drop (inches of water gauge, 3-hour block average)	111.021	See note
Recirculating liquid flow rate (gallons per minute, 3-hour block average)	111.021	See note

Note: As set by the last approved emisssions test.

Recordkeeping [15A NCAC 02Q .0314]

i. The results of inspection and maintenance of the wet scrubber (**ID No. CD-111.021**) and the particleboard press **(ID No. 111.021)** shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection;
   iii. the results of any maintenance performed on the wet scrubber (**ID No. CD-111.021**) and the particleboard press **(ID No. 111.021)**;
   iv. any variance from manufacturer's recommendations, if any, and corrections made; and
   v. pressure drop, and recirculating flow rate, (3–hour block averages) for the wet scrubber.

Monitoring/Recordkeeping (VOC, PM_{10}, $PM_{2.5}$) [15A NCAC 02Q .0314]

j. The Particleboard Press (**ID No. 111.021**) total particleboard production during any consecutive 12-month period shall not exceed **424,000 thousand square feet (MSF) (¾" basis).** The Permittee shall maintain monthly records of the total amount of particleboard produced in a logbook (written or in electronic format). Such records shall indicate the amount of particleboard produced during the preceding month and the total amount of particleboard produced over the preceding 12-month period.

Monitoring/Recordkeeping (PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

k. The monitoring/recordkeeping requirements in Sections 2.1 E.2.1.b through e, above,, 2.1 E.2.2.b through e, above, and this Section shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

Reporting [15A NCAC 02Q .0314]

l. The Permittee shall submit the results of any maintenance performed on the control device in Tables 2.1.E.2.1 – Affected Source and 2.1.E.2.2 - BACT, above, and the Particleboard presss (**ID No. 111.021**) within 30 days of a written request by the DAQ.
m. Reporting requirements in Section 2.1 C.2.f, above, and this Section shall be sufficient to ensure compliance with 15A NCAC 02D .0530
n. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 E.2.3.d through k, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

Reporting (PM_{10}, $PM_{2.5}$, VOC and opacity)

o. Postmarked on or before January 30 of each calendar year for the preceding six-month period between July and

December and July 30 of each calendar year for the preceding six-month period between January and June, the annual production rate of particleboard in cubic meters and board-feet shall be reported to the Regional Supervisor, Division of Air Quality. The annual production rate must be calculated for each of the six twelve-month periods over the previous seventeen months.

p. The Permittee shall submit a summary report of monitoring and record keeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

E.3 Particleboard Forming

Table 2.1 E.3.1 – Affected Sources

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Particleboard Forming			
111.031	Spreader Extraction	CD 111.031	One bagfilter (4,520 square feet of filter area)
111.041	Mattress Former General Extraction	CD 111.041	One bagfilter (10,546 square feet of filter area)
111.071	Rejected Material to Silo 162 Extraction System	CD 111.071	One bagfilter (427 square feet of filter area)
111.072	Rejected Material to Silo 155 Extraction System	CD 111.072	One bagfilter (427 square feet of filter area)
111.081	Mattress Preheating Exhaust System	CD 111.081	One bagfilter (1,507 square feet of filter area)

The following table provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	$E = 4.10P^{0.67}$ or $E = 55.0(P)^{0.11} - 40$ where; E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity No MRR requirements	15A NCAC 02D .0521
VOC, PM10, PM2.5, opacity	Best Available Control Technology	15A NCAC 02D .0530
HAPs	No applicable requirements	15A NCAC 02D .1111 (40 CFR Part 63 Subpart DDDD)
Odors	**State Enforceable Only** Odorous emissions must be controlled - See Section 2.2 A.1.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0515: PARTICULATE EMISSIONS FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from the emission sources in Table 2.1 E.3.1 – Affected Sources, above, that are discharged into the atmosphere shall not exceed an allowable emission rate as calculated by the following equations:

Process Rate	Allowable Emission Rate Equation
Less than or equal to 30 tons per hour	$E = 4.10 \times P^{0.67}$
Greater than 30 tons per hour	$E = 55.0(P)^{0.11} - 40$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring [15A NCAC 02Q .0314]

c. Particulate matter emissions from the emission sources in Table 2.1 E.3.1– Affected Sources, above, shall be controlled as presented.
d. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. a monthly visual inspection of the systems' ductwork and material collection units for leaks; and
   ii. an annual (for each 12-month period following the initial inspection) internal inspection of the bagfilters' structural integrity.

Recordkeeping [15A NCAC 02Q .0314]

e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection;
   iii. the results of any maintenance performed on any control device; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

Reporting [15A NCAC 02Q .0314]

f. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.
g. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section 2.1 E.3.1.c through e, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from the sources in Table 2.1 E.3.1, above, shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping [15A NCAC 02Q .0314]

c. To ensure compliance, the Permittee shall observe, on a weekly basis, the following emission points in the Particleboard mill for any visible emissions above normal:

Emission Source Description and ID No.	Emission Point ID No.
Spreader Extraction	111.03
Mattress Former General Extraction	111.03
Rejected Material to Silo 162 Extraction System	111.07a
Rejected Material to Silo 155 Extraction System	111.07b
Mattress Preheating Exhaust System	111.03

The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. The Permittee shall establish "normal" for these sources in the first 30 days following the beginning of operation. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
   i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in condition a. above.
d. The results of the monitoring for visible emissions shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. To ensure quality, entries in the logbook should be signed by personnel responsible for the effective operation of the units in the particleboard mill and their

air pollution control devices. The logbook shall record the following:

v. the date and time of each recorded action;
vi. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
vii. the results of any corrective actions performed.

Reporting [15A NCAC 02Q .0314]

e. The Permittee shall submit a summary report of monitoring and record keeping activities given in Section 2.1 E.3.2.c and d, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded for emissions units included as Particleboard Forming Sources. These BACT limits shall apply at all times.

Table 2.1 E.3.2 – BACT

Emission Source ID No.	Emission Source Description	Pollutants	Emission Limits	Control Technology
Particleboard Forming				
111.031 111.041 111.071 111.072 111.081	Spreader Extraction Mattress Former General Extraction Rejected Material to Silo 162 Extraction System Rejected Material to Silo 162 Extraction System Mattress Preheating Exhaust System	VOC	**Total for Particleboard Forming Sources*** 0.17 lb/hr or 0.0059 lb/MSF ¾" board 0.63 tpy	Good Design, Operating and Maintenance practices
		PM_{10}	**For Each Source** 0.002 gr/dscf	Bagfilter Good Design, Operating and Maintenance practices
		$PM_{2.5}$	**For Each Source** 0.0008 gr/dscf	Bagfilter Good Design, Operating and Maintenance practices
		opacity	**For Each Source** 20 percent	Bagfilter Good Design, Operating and Maintenance practices

* This BACT limit applies to the entire Particleboard Forming Sources, above, and in Table 2.1 E.3.2-BACT, below.

Testing (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

b. If emissions testing is required for PM_{10}, $PM_{2.5}$, VOC and opacity, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

c. VOC, PM_{10}, $PM_{2.5}$ and opacity emissions from the Particleboard Forming Sources in Table 2.1 E.3.1-Affected Sources, above, shall be controlled as presented in Table 2.1 E.3.2-BACT, above.

d. The monitoring/recordkeeping requirements in Section 2.1 E.3.1.c through e, above, and 2.1 E.3.2.c and d, above, shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

Reporting (PM_{10}, $PM_{2.5}$, VOC, opacity) [15A NCAC 02Q .0314]

e. The Permittee shall submit the results of any maintenance performed on the control devices Table 2.1 E.3.2, above, within 30 days of a written request by the DAQ.

f. The reporting requirements in Section 2.1 E.3.1.f and g (above) and 2.1 E.3.2.e above shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

F. Product Sawing, Cooling and Sanding Sources:

F.1 Particleboard Product Sanding and Sawing

Table 2.1 F.1.1 – Affected Sources

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Particleboard Product Sanding and Sawing			
112.021	Diagonal Saw Extraction	CD 112.021	One bagfilter (6,026 square feet of filter area)
112.031	Sanding Machine Extraction	CD 112.031	One bagfilter (3,013 square feet of filter area)
112.041	Dividing Saw Extraction	CD 112.041	One bagfilter (15,065 square feet of filter area)
112.051	Sanding Dust Conveyance System to Silo 169	CD 112.051	One bagfilter (427 square feet of filter area)
112.061	Cut Material Conveyance System to Silo 162 Extraction	CD 112.061	One bagfilter (264 square feet of filter area)
112.071	Diagonal Saw Offcuts to Granulate Silo 162 Extraction	CD 112.071	One bagfilter (264 square feet of filter area)

The following table provides a summary of limits and/or standards for the above emission sources described above..

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	Adequate duct work and properly designed collectors	15A NCAC 02D .0512
Visible emissions	20 percent opacity	15A NCAC 02D .0521
VOCs, $PM_{2.5}$, PM_{10}	Best Available Control Technology	15A NCAC 02D .0530
HAPs	No applicable requirements	15A NCAC 02D .1111 (40 CFR Part 63 Subpart DDDD)
Odors	**State Enforceable Only** Odorous emissions must be controlled - See Section 2.2 A.1.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0512: PARTICULATES FROM WOOD PRODUCTS FINISHING PLANTS

a. The Permittee shall not cause, allow, or permit particulate matter caused by the working, sanding, or finishing of wood to be discharged from any stack, vent, or building into the atmosphere without providing, as a minimum for its collection, adequate duct work and properly designed collectors. In no case shall the ambient air quality standards be exceeded beyond the property line.

Monitoring [15A NCAC 02Q .0314]

b. Particulate matter emissions from the sources in Table 2.1 F.1.1– Affected Sources, above, shall be controlled as presented.

c. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer, if any. As a minimum, the inspection and maintenance program shall include::
   i. monthly external inspection of the ductwork, cyclones, and bagfilters noting the structural integrity; and
   ii. annual (for each 12-month period following the initial inspection) internal inspection of the bagfilters noting the structural integrity and the condition of the filters.

Recordkeeping [15A NCAC 02Q .0314]

d. The results of inspection and maintenance for the bag filters shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection; and
   iii. the results of maintenance performed on any control device.

Reporting [15A NCAC 02Q .0314]

e. The Permittee shall submit the results of any maintenance performed on the control devices in Table 2.1 F.1.1– Affected Sources, above, within 30 days of a written request by the DAQ.
f. The Permittee shall submit a summary report of monitoring and record keeping activities given in Section 2.1 F.1.1.b through d, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from the sources in Table 2.1 F.1.1– Affected Sources, above, shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.
c. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the opacity limit of 20% on an annual basis with a Method 9 test and observing the emissions point (this stack is shared by the Biomass ERF (**ID No. 107.011**), Surface layer dryer (**ID No. 109.011**), Core layer dryer (**ID No. 109.021**), Particleboard press (**ID No. 111.021**), Star coolers (**ID No. 112.011**) and Diagonal saw extraction (**ID No. 112.021**)). Visual emissions testing shall be conducted in accordance with the following:
   i. The Permittee shall perform testing in accordance with 15A NCAC 02D .2600.
   ii. The Biomass ERF (**ID No. 107.011**), Surface layer dryer (**ID No. 109.011**), Core layer dryer (**ID No. 109.021**), Particleboard press (**ID No. 111.021**), Star coolers (**ID No. 112.011**) and Diagonal saw extraction (**ID No. 112.021**) shall all be in operation during source testing. The Permittee shall be responsible for ensuring, within the limits of practicality, that the equipment or processes being tested are operated at or near their maximum normal production rate or at a lesser rate if specified by the Director or his delegate.
   iii. Testing shall be completed within 180 days of initial start-up of these sources .The Permittee shall submit a written report of the test(s) results to the Regional Supervisor, DAQ within 60 days of completion of the test.

Monitoring/Recordkeeping [15A NCAC 02Q .0314]

d. To ensure compliance, the Permittee shall observe, on a daily basis, the following emission point for any visible emissions above normal:

Emission Source Description and ID No.	Emission Point ID No.
Diagonal Saw Extraction	108.01*

*This stack is shared by the Biomass ERF (**ID No. 107.011**), Surface layer dryer (**ID No. 109.011**), Core layer dryer (**ID No. 109.021**), Particleboard press (**ID No. 111.021**), Star coolers (**ID No. 112.011**) and Diagonal saw extraction (**ID No. 112.021**) and is subject to daily observations associated with these sources.

The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall establish "normal" for these sources in the first 30 days following the beginning of operation. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. The Permittee shall establish "normal" for this/these source(s) in the first 30 days of beginning operation. If visible emissions from these sources are observed to be above normal, the Permittee shall either:

   i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A

NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in condition a. above.

e. To ensure compliance, the Permittee shall observe, on a weekly basis, the following emission points for any visible emissions above normal:

Emission Source Description and ID No.	**Emission Point ID No.**
Sanding Machine Extraction	111.03
Dividing Saw Extraction	
Sanding Dust Conveyance System to Silo 169	112.05
Cut Material Conveyance System to Silo 162 Extraction	112.06
Diagonal Saw Offcuts to Granulate Silo 162 Extraction	112.07

The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:

i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in condition a. above.

f. The results of the monitoring for visible emissions shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

Reporting [15A NCAC 02Q .0314]

g. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 F.1.2.d through f, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded for emissions units included as Product Sawing, Cooling and Sanding Sources. These BACT limits shall apply at all times.

Table 2.1 F.1.2 – BACT

Emission Source ID No.	Emission Source Description	Pollutants	Emission Limits	Control Technology
Particleboard Product Sawing and Sanding				
112.021 112.031 112.041 112.051 112.061 112.071	Diagonal Saw Extraction Sanding Machine Extraction Dividing Saw Extraction Sanding Dust Conveyance System to Silo 169 Cut Material Conveyance System to Silo 162 Extraction Diagonal Saw Offcuts to Granulate Silo 162 Extraction	VOC	**Total for Particleboard Product Sawing and Sanding Sources***	Good Design, Operating and Maintenance practices
			8.97 lb/hr 39.3 tpy or 0.47 lb/MSF ¾" board	
		PM_{10}	**For Each Source**	Bagfilter Good Design, Operating and Maintenance practices
			0.002 gr/dscf	
			Total for Particleboard Product Sawing and Sanding Sources	
			2.56 lb/hr and 11.22 tpy	
		$PM_{2.5}$	**For Each Source**	Bagfilter Good Design, Operating and Maintenance practices
			0.0008 gr/dscf	
			Total for Particleboard Product Sawing and Sanding Sources	
			1.03 lb/hr and 4.49 tpy	
		opacity	**For Each Source**	Bagfilter Good Design, Operating and Maintenance practices
			20 percent	

* This BACT limit applies to the entire Particleboard Product Sawing and Sanding Sources, above, and Material Preparation Table 2.1 A.F.1.2-BACT, below.

Testing (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

b. If emissions testing is required VOC, PM_{10}, $PM_{2.5}$ and opacity emissions, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

c. VOC, PM_{10}, $PM_{2.5}$ and opacity emissions from the Product Sawing, Cooling and Sanding Sources in Table 2.1 F.1.1 - Affected Sources above shall be controlled as presented in Table 2.1 F.1.2 - BACT (above).

d. The monitoring/recordkeeping requirements in Sections 2.1 F.1.1.b through d, above, and 2.1 F.1.2.d through f, above, shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

Reporting

e. The reporting requirements in Sections 2.1 F.1.1.e and f, above, and 2.1 F.1.2.g, above, shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

F.2 Cut Particleboard Product Cooling

Table 2.1 F.2.1 – Affected Sources

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Cut Particleboard Product Cooling			
112.011	Star Coolers	NA	NA

The following table provides a summary of limits and/or standards for the above emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	$E = 4.10P^{0.67}$ or $E = 55.0(P)^{0.11} - 40$ where; E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity when averaged over a six-minute period	15A NCAC 02D .0521
VOCs, $PM_{2.5}$, PM_{10}, opacity	Best Available Control Technology	15A NCAC 02D .0530
HAPs	National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products See Section 2.2 A.1.3	15A NCAC 02D .1111 (40 CFR Part 63 Subpart DDDD)
Odors	**State Enforceable Only** Odorous emissions must be controlled - See Section 2.2 A.1.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0515: PARTICULATE EMISSIONS FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from the emission sources in Table 2.1 F.2.1, above, that are discharged into the atmosphere shall not exceed an allowable emission rate as calculated by the following equations:

Process Rate	Allowable Emission Rate Equation
Less than or equal to 30 tons per hour	$E = 4.10 \times P^{0.67}$
Greater than 30 tons per hour	$E = 55.0(P)^{0.11} - 40$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping [15A NCAC 02Q .0314]

c. Particulate matter emissions from the emission source in Table 2.1 F.2.1 – Affected Sources, above, shall be controlled as presented.

d. The monitoring and recordkeeping requirements required in the PSD section 2.1 F.2.3, below, shall be followed in order to demonstrate compliance with 15A NCAC 02D .0515.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from the sources these sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.
c. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the opacity limit of 20% on an annual basis with a Method 9 test and observing the emissions point (this stack is shared by the Biomass ERF (**ID No. 107.011**), Surface layer dryer (**ID No. 109.011**), Core layer dryer (**ID No. 109.021**), Particleboard press (**ID No. 111.021**), Star coolers (**ID No. 112.011**) and Diagonal saw extraction (**ID No. 112.021**)). Visual emissions testing shall be conducted in accordance with the following:
   i. The Permittee shall perform testing in accordance with 15A NCAC 02D .2600.
   ii. The Biomass ERF (**ID No. 107.011**), Surface layer dryer (**ID No. 109.011**), Core layer dryer (**ID No. 109.021**), Particleboard press (**ID No. 111.021**), Star coolers (**ID No. 112.011**) and Diagonal saw extraction (**ID No. 112.021**) shall all be in operation during source testing. The Permittee shall be responsible for ensuring, within the limits of practicality, that the equipment or processes being tested are operated at or near their maximum normal production rate or at a lesser rate if specified by the Director or his delegate.
   iii. Testing shall be completed within 180 days of initial start-up of these sources .The Permittee shall submit a written report of the test(s) results to the Regional Supervisor, DAQ within 60 days of completion of the test.

Monitoring [15A NCAC 02Q .0314]

d. To ensure compliance, once per day the Permittee shall observe the following emission point for any visible emissions above normal:

Emission Source Description and ID No.	Emission Point ID No.
Star Coolers	108.01*

*This stack is shared by the Biomass ERF (**ID No. 107.011**), Surface layer dryer (**ID No. 109.011**), Core layer dryer (**ID No. 109.021**), Particleboard press (**ID No. 111.021**), Star coolers (**ID No. 112.011**) and Diagonal saw extraction (**ID No. 112.021**) and is subject to daily observations associated with these sources.

The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall establish "normal" for these sources in the first 30 days following the beginning of operation. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. The Permittee shall establish "normal" for this/these source(s) in the first 30 days of beginning operation. If visible emissions from this/these source(s) are observed to be above normal, the Permittee shall either:
   i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in condition a. above.
e. The results of the monitoring for visible emissions shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. To ensure quality, entries in the logbook should be signed by personnel responsible for the effective operation of the units in the particleboard mill and their air pollution control devices. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

Reporting [15A NCAC 02Q .0314]

f. The Permittee shall submit a summary report of monitoring and record keeping activities given in Section 2.1 F.2.2.d and e, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded for the Star Coolers. These BACT limits shall apply at all times.

Table 2.1 F.2.2 – BACT

Emission Source ID No. and Description	Pollutants	Emission Limits	Control Technology
Star Coolers **(ID No. 112.011)**	VOC	0.364 lb/MSF ¾" board (3-hour average) from the star coolers	Good Design, Operating and Maintenance practices Compliance with PCWP MACT (production based limit for process units meeting compliance options without a control device)
	PM_{10}	0.036 lb/MSF ¾" board (3-hour average) from the star coolers	Good Design, Operating and Maintenance practices
	$PM_{2.5}$	0.036 lb/MSF ¾" board (3-hour average) from the star coolers	Good Design, Operating and Maintenance practices
	opacity	20 percent	Good Design, Operating and Maintenance practices

Testing (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

b. If emissions testing is required for VOC, PM_{10}, $PM_{2.5}$ and opacity emissions the testing shall be performed in accordance with General Condition 17.

c. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limits for VOC, PM_{10}, $PM_{2.5}$ on an annual basis by testing the Star Coolers in Table 2.1 F.2.2 - BACT (above). If the results of these tests are less than 80 percent of the emission limits, the Permittee shall be required to stack test only once every five years following the previous stack test. Testing of Star Coolers in Table 2.1 F.2.2 - BACT (above) shall be conducted in accordance with the following:
   i. The Permittee shall perform testing in accordance with 15A NCAC 02D .2600.
   ii. The Star Coolers **(ID No. 112.011)** shall all be in operation during source testing. The Permittee shall be responsible for ensuring, within the limits of practicality, that the equipment or processes being tested are operated at or near their maximum normal production rate or at a lesser rate if specified by the Director or his delegate.
   iii. Testing shall be completed within 180 days of initial start-up of the Star Coolers in Table 2.1 F.2.2 - BACT (above). The Permittee shall submit a written report of the test(s) results to the Regional Supervisor, DAQ within 60 days of completion of the test.

Monitoring (PM_{10}, $PM_{2.5}$, VOC, opacity) [15A NCAC 02Q .0314]

d. VOC, PM_{10}, $PM_{2.5}$ and opacity emissions from the Star Coolers in Table 2.1 F.2.1-Affected Source, above, shall be controlled as presented in Table 2.1 F.2.2-BACT, above.

e. To ensure compliance and effective operation, the Permittee shall perform inspections and maintenance of the Star Coolers **(ID No. 112.011)**. At a minimum, the inspection and maintenance requirement shall include the following:
   i. a weekly inspection of fans, blowers, and associated process control equipment.
   ii. an annual (for each 12-month period following the initial inspection) internal inspection of Star Coolers for structural integrity. The annual inspection of a cooler may be delayed until the next cold outage.

Recordkeeping

f. The results of inspection and maintenance activities shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative of DAQ upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection;

iii. the results of any maintenance performed; and
iv. any variance from manufacturer's recommendations, if any, and corrections made.

Reporting (VOC) [15A NCAC 02Q .0314]

g. The Permittee shall submit the results of any maintenance performed on the Star Coolers in Table 2.1 F.2.2 - BACT (above) within 30 days of a written request by the DAQ.
h. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 F.2.3.d through f above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

G. Product Upgrading Sources:

G.1 Paper Impregnation Lines

Table 2.1.G.1.1 – Affected Sources

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Paper Impregnation			
115.011 115.012	Impregnation Line 1 with natural gas-fired low NOX burner (20.5 MMBtu/hr heat input capacity)	NA	NA
115.021 115.022	Impregnation Line 2 with natural gas-fired low NOX burner (13.6 MMBtu/hr heat input capacity)		
115.031 115.032	Impregnation Line 3 with natural gas-fired low NOX burner (13.6 MMBtu/hr heat input capacity)		

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	$E = 4.10P^{0.67}$ or $E = 55.0(P)^{0.11} - 40$ where; E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
SO_2	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity when averaged over a six-minute period	15A NCAC 02D .0521
NOx, CO, VOC, PM10, PM2.5, opacity, GHGs	Best Available Control Technology Production Limit - **592,015,073 ft^2/yr per line** For Facility-wide GHGs - See Section 2.2 A.1.1	15A NCAC 02D .0530
HAPs	National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating Operations	15A NCAC 02D .1111 (40 CFR Part 63 Subpart JJJJ)
Odors	**State Enforceable Only** Odorous emissions must be controlled - See Section 2.2 A.1.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0515: PARTICULATE EMISSIONS FROM MISCELLANEOUS INDUSTRIAL PROCESSES

e. Emissions of particulate matter from the emission sources in Table 2.1 G.1.1, above, that are discharged into the atmosphere shall not exceed an allowable emission rate as calculated by the following equations:

Process Rate	Allowable Emission Rate Equation
Less than or equal to 30 tons per hour	$E = 4.10 \times P^{0.67}$
Greater than 30 tons per hour	$E = 55.0(P)^{0.11} - 40$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0314]

f. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping [15A NCAC 02Q .0314]

g. Particulate matter emissions from the emission source in Table 2.1 G.1.1– Affected Sources, above, shall be controlled as presented.
h. The monitoring and recordkeeping requirements required in the PSD section 2.1 G.1.5, below shall be followed in order to demonstrate compliance with 15A NCAC 02D .0515.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from the sources in Table 2.1 G.1.1 – Affected Sources (above) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308(a)]

c. No monitoring, recordkeeping or reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from the sources in Table 2.1.G.1.11 – Affected Sources, above, shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0314]

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in these sources.

4. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability

a. The paper and other web coating operations, Table 2.1 G.1.1 – Affected Sources, above, shall comply with all requirements of 15A NCAC 02D .1111 "Maximum Achievable Control Technology" and 40 CFR Part 63 Subpart JJJJ "National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coatings." For the purpose of this permit condition, the requirements of this Subpart apply to the collection of all web coating lines at the facility including lines engaged in the coating of metal webs that are used in flexible packaging, and web coating lines engaged in the coating of fabric substrates for use in pressure sensitive tape and abrasive materials. This Subpart does not apply to the coating lines specified in 40 CFR 63.3300(a) through (g).

Definitions

b. For the purpose of this permit condition, the definitions and nomenclature contained in 40 CFR 63.3310 shall apply.

Regulated Pollutants

c. This Subpart requires the Permittee to limit organic hazardous air pollutant emissions.

General Provisions

d. The Permittee shall comply with the requirements of 40 CFR Part 63 Subpart A "General Provisions", according to the applicability of Subpart A to such sources as identified in Table 2 of Subpart JJJJ: General Provisions Applicability to Subpart JJJJ.

Compliance Statement

e. Failure to comply with the applicable standards and dates contained in 40 CFR 63.3320 through 40 CFR 63.3330, general requirements for compliance with the emission standards and for monitoring and performance tests contained in 40 CFR 63.3340 through 40 CFR 63.3360, requirements for showing compliance contained in 40 CFR 63.3370, and all

notifications, reports and records contained in 40 CFR 63.3400 and 40 CFR 63.3410, as described below, shall be considered a violation of Subpart JJJJ.

63.3320-63.3321 Emission Standards and Operating Limits

f. The Permittee of an affected source subject to the requirements of this Subpart must comply with the following requirements on and after the compliance dates as specified in 40 CFR 63.3330. The Permittee shall demonstrate compliance with this Subpart by following the procedures in 40 CFR 63.3370.

The Permittee shall limit organic HAP emissions through one of the options listed below:

Emission sources	Emission Limits
New sources	-No more than 2 percent of the organic HAP applied for each month (90 percent reduction)
New sources	-No more than 8 percent of the mass of coating solids applied for each month

63.3360 Performance Tests

g. The Permittee shall conduct the following performance tests:

If you control organic HAP on any individual web coating line or any group of web coating lines by:	You must:
Limiting organic HAP or volatile matter content of coatings	-Determine the organic HAP or volatile matter and coating solids of coating materials according to procedures in 40 CFR 63.3360(c) and (d). If applicable, determine the mass of volatile matter retrained in the coated web or otherwise not emitted to the atmosphere according to 40 CFR 63.3360(g)

63.3370 Compliance Demonstrations

h. The Permittee shall demonstrate compliance according to the following:

If you choose to demonstrate compliance by:	Then you must demonstrate that:	To accomplish this:
(1) Use of ‘‘as-purchased’’ compliant coating materials.	(i) Each coating material used at an existing affected source does not exceed 0.04 kg organic HAP per kg coating material, and each coating material used at a new affected source does not exceed 0.016 kg organic HAP per kg coating material as-purchased; or	Follow the procedures set out in 63.3370(b).
	(ii) Each coating material used at an existing affected source does not exceed 0.2 kg organic HAP per kg coating solids, and each coating material used at a new affected source does not exceed 0.08 kg organic HAP per kg coating solids as-purchased.	Follow the procedures set out in 63.3370(b).

If you choose to demonstrate compliance by:	Then you must demonstrate that:	To accomplish this:
(2) Use of ‘‘as-applied’’ compliant coating materials.	(i) Each coating material used at an existing affected source does not exceed 0.04 kg organic HAP per kg coating material, and each coating material used at a new affected source does not exceed 0.016 kg organic HAP per kg coating material as-applied;	Follow the procedures set out in 63.3370(c)(1). Use either Equation 1a or b of 63.3370 to determine compliance with 63.3320(b)(2) in accordance with 63.3370(c)(5)(i).
	or (ii) Each coating material used at an existing affected source does not exceed 0.2 kg organic HAP per kg coating solids, and each coating material used at a new affected source does not exceed 0.08 kg organic HAP per kg coating solids as-applied;	Follow the procedures set out in 63.3370(c)(2). Use Equations 2 and 3 of 63.3370 to determine compliance with 63.3320(b)(3) in accordance with 63.3370(c)(5)(i).
	or (iii) Monthly average of all coating materials used at an existing affected source does not exceed 0.04 kg organic HAP per kg coating material, and monthly average of all coating materials used at a new affected source does not exceed 0.016 kg organic HAP per kg coating material as-applied on a monthly average basis;	Follow the procedures set out in 63.3370(c)(3). Use Equation 4 of 63.3370 to determine compliance with 63.3320(b)(2) in accordance with 63.3370(c)(5)(ii).
	or (iv) Monthly average of all coating materials used at an existing affected source does not exceed 0.2 kg organic HAP per kg coating solids, and monthly average of all coating materials used at a new affected source does not exceed 0.08 kg organic HAP per kg coating solids as-applied on a monthly average basis.	Follow the procedures set out in 63.3370(c)(4). Use Equation 5 of 63.3370 to determine compliance with 63.3320(b)(3) in accordance with 63.3370(c)(5)(ii).
(3) Tracking total monthly organic HAP applied	Total monthly organic HAP applied does not exceed the calculated limit based on emission limitations.	Follow the procedures set out in 63.3370(d). Show that total monthly HAP applied (Equation 6 of 63.3370) is less than the calculated equivalent allowable organic HAP (Equation 13a or b of 63.3370).

63.3400 Notifications and Reporting

i. The Permittee shall submit all required reports and notifications according to the following schedule:

Event	New/Reconstructed Sources
Submit Initial Notification	Within 120 days from start-up
Conduct Initial Performance Test	Within 180 days from startup
Performance Test Report	Within 240 days after initial startup submit with the “Notification of Compliance Status” report

Event	New/Reconstructed Sources
Notification of Compliance Status	Within 60 days following the completion of the performance test
Semiannual Compliance Reports	No later than July 31 or January 31, whichever date is the first date after the end of the initial compliance date, and semiannually on July 31 or January 31 thereafter

ii. The Permittee shall submit the initial notification as required by 40 CFR 63.9(b). The Permittee may submit a title V application in lieu of this initial notification provided it contains the same information as required by 40 CFR 63.9(b) and is submitted by the same date specified above.
iii. The Permittee shall submit a semiannual compliance report according to the schedules above. The report shall contain all elements as described in 40 CFR 63.3400(c)(2)(i) through (vi).
iv. The Permittee shall submit the notification of compliance status as specified in 40 CFR 63.9(h).

63.3410 Recordkeeping

j. The Permittee shall maintain the records specified in 40 CFR 63.10(b)(2) of all measurements needed to demonstrate compliance with this standard as outlined in 40 CFR 63.3410(a)(1)(i) through (vi) on a monthly basis in accordance with the requirements of 40 CFR 63.10(b)(1). The Permittee shall maintain records of all liquid-liquid material balances performed in accordance with the requirements of 40 CFR 63.3370. The records must be maintained in accordance with the requirements of 40 CFR 63.10(b).

5. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded for the Natural gas-fired low NOx burners with Impregnation Lines. These BACT limits shall apply at all times.

Table 2.1 G.1.2 - BACT

Emission Source ID No. and Description	Pollutants	Emission Limits	Control Technology
Natural Gas low NO_X burners (ID Nos. 115.011, 115.021, 115.031) with Impregnation Lines 1,2,3 (ID Nos. 115.012, 115.022, 115.032)	NOx	20 mg/m3 in the exhaust or 0.11 lb/MMBtu heat input	Low NO_X burners Good Combustion, Operating and Maintenance practices
	CO	0.28 lb/MMBtu heat input	Good Combustion, Operating and Maintenance practices
	VOC	**For each source (burner and line)** 3.9 lb/hr or 16.9 tpy All Lines: 50.7 tpy	Good Design and Operating and Maintenance practices including compliance with the Subpart JJJJ NESHAP limiting the VOC and HAP content of the coating applied at the impregnation lines
	PM_{10}	**For each source (burner and line)** 0.03 lb/hr or 0.14 tpy PM10 for each Impregnation Line	Good Design, Operating and Maintenance practices for both Impregnation Lines
	$PM_{2.5}$	**For each source (burner and line)** 0.003 lb/hr or 0.01 tpy PM2.5 for each Impregnation Line	Good Design, Operating and Maintenance practices for both Impregnation Lines
	opacity	**For each source (burner and line)** 20 percent	Good Combustion, Operating and Maintenance practices
	Facility wide GHGs **See Section 2.2 A.1**	388,187 tpy CO2e (12-month rolling average) (total for facility)	Fuel Substitution (use of natural gas (low carbon intensity) Good Combustion, Operating and Maintenance practices

Testing (NO_x, CO, VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

b. If emissions testing is required for NOx, PM_{10}, $PM_{2.5}$, VOC, CO and opacity, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping (NO_x, CO, VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

c. NOx, CO, VOC, PM_{10}, $PM_{2.5}$ and opacity emissions from the Natural gas-fired low NOx burners with Impregnation Lines in Table 2.1 G.1.1-Affected Sources (above) shall be controlled as presented in Table 2.1 G.1.2-(BACT) (above).

d. The Paper impregnation processes (**ID Nos. ES 115.011, ES 115.021 and ES 115.031)**) total production output production during any consecutive 12-month period shall not exceed **592,015,073 ft^2/yr per line** of decorative paper films applied per year. The Permittee shall maintain monthly records of the total amount of decorative paper films applied in a logbook (written or in electronic format). Such records shall indicate the amount of decorative paper films applied during the preceding month and the total amount of produced over the preceding 12-month period.

e. To ensure compliance and effective operation, the Permittee shall perform inspections and maintenance, as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include an annual inspection of the natural gas-fired low NOx burners and visual external inspection of the system ductwork associated with the Impregnation Lines for leaks. The annual inspection of the natural gas-fired low NOx burners and Impregation Lines may be delayed until the next cold outage.
f. The results of inspection and maintenance activities shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative of DAQ upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection;
   iii. the results of any maintenance performed; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.
g. The monitoring and recordkeeping requirements in Section 2.1 G.4 of the MACT Subpart JJJJ shall be sufficient to ensure compliance with 15A NCAC 02D .0530;
h. The monitoring and recordkeeping requirements for Facility-wide GHGs - in Section 2.2 A.1 shall be sufficient to ensure compliance with 15A NCAC 02D .0530; and
i. The monitoring and recordkeeping requirements in this Section shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

Reporting (NO_x, CO, VOC, PM_{10}, $PM_{2.5}$, opacity, GHGs) [15A NCAC 02Q .0314]

j. The Permittee shall submit the results of any maintenance performed on the the natural gas-fired low NOx burners with Impregnation Lines in Table 2.1 G.2 within 30 days of a written request by the DAQ.
k. The reporting requirements in Section 2.1 G.4 of the MACT Subpart JJJJ shall be sufficient to ensure compliance with 15A NCAC 02D .0530; and
l. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

G.2 Lamination Thermal Oil Heater

Table 2.1 G.2.1 – Affected Sources

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
116.011	Natural gas-fired Backup Thermal Oil Heater with low NOx burners (20.5 MMBtu/hr heat input capacity) for Lamination	NA	NA

Note: The primary heat for the Lamination process and Paticleboard production is provided by the Energy Recovery Furnace's FGR system sidestream which indirectly heats the free-standing indirect-fired Thermal oil heater (41 MMBtu/hr heat input).

The following table provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	0.39 pounds per million Btu heat input	15A NCAC 02D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity when averaged over a six-minute period	15A NCAC 02D .0521
NA	Monthly fuel combustion recordkeeping requirements	15A NCAC 02D .0524 (40 CFR 60, Subpart Dc)
NO_x, CO, VOC, PM_{10}, $PM_{2.5}$, opacity, GHGs	Best Available Control Technology For Facility-wide GHGs - See Section 2.2 A.1.1	15A NCAC 02D .0530
HAPs	One time initial energy assessment Annual tune-ups - No oxygen autotrim; or Five year tune-ups - With oxygen autotrim	15A NCAC 02D .1111 (40 CFR Part 63 Subpart DDDDD)
Odors	**State Enforceable Only** Odorous emissions must be controlled - See Section 2.2 A.1.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

a. Emissions of particulate matter from the combustion of natural gas that are discharged from the sources in Table 2.1 G.2.1 – Affected Sources, above, into the atmosphere shall not exceed 0.39 pounds per million Btu heat input.

Testing [15A NCAC 02Q .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308(a)]

c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas in this source.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from the sources in Table 2.1 G.2.1 – Affected Sources, above, shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308(a)]

c. No monitoring, recordkeeping or reporting is required for sulfur dioxide emissions from the firing of natural gas in this source.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from the source in Table 2.1 G.2.1, above, shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0314]

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in this source.

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS (NSPS Subpart Dc)

a. For the Thermal Oil Heater **(ID No. 116.011)** in Table 2.1 G.2.1 – Affected Sources, above, (a new unit designed to burn gas 1 fuels only), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart DDDDD "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" and Subpart A "General Provisions."

Recordkeeping [15A NCAC 02Q .0314, 40 CFR 60.48c(c)]

b. The Permittee shall record and maintain records of the amounts of each fuel fired during each month. [40 CFR 60.48c(g)(2)] These records shall be maintained by the Permittee for a period of two years following the date of such record. [40 CFR 60.48c(i)]

Reporting/Notifications [15A NCAC 02Q .0314, 40 CFR 60.48c(c), (j)]

c. The Permittee shall submit a notification of the actual date of initial startup of the boiler to the Regional Supervisor, DAQ, postmarked within 15 days after such date. [40 CFR 60.7, 60.48c(a)]

5. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR 63.7485, 63.7490, 63.7499(l)]

a. For the Thermal Oil Heater **(ID No. 116.011)** in Table 2.1 G.2.1, above, (a new unit designed to burn gas 1 fuels only), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart DDDDD "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" and Subpart A "General Provisions."

Definitions and Nomenclature [40 CFR 63.7575]

b. For the purpose of this permit condition, the definitions and nomenclature contained in 40 CFR 63.7575 shall apply.

40 CFR Part 63 Subpart A General Provisions [40 CFR 63.7565]

c. The Permittee shall comply with the requirements of 40 CFR 63 Subpart A General Provisions according to the applicability of Subpart A to such sources as identified in Table 10 to 40 CFR Part 63, Subpart DDDDD.

Compliance Date [40 CFR 63.7495(a)]

d. The Permittee shall comply with the applicable requirements upon startup of this source.

Notifications [40 CFR 63.7545]

e. As specified in 40 CFR 63.9(b)(4) and (5), the Permittee shall submit an Initial Notification not later than 15 days after the actual date of startup of the affected source. [40 CFR 63.7545(c)]

Work Practice Standards (with oxygen trim option) [15A NCAC 02Q .0314]

f. The Permittee shall conduct a tune-up every five years as specified below:
   i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The

Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled or unscheduled shutdown, but the burner must be inspected at least once every 72 months.

ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown).

iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject.

v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

vi. Set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up.

[40 CFR 63.7500(a), 63.7540(a)(10), (a)(12)]

g. For this source, each 5-year tune-up shall be conducted no more than 61 months after the previous tune-up. The initial tune-up shall be conducted no later than 61 months after the initial startup of the source.
[40 CFR 63.7515(d)]

h. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.[40 CFR 63.7540(a)(13), 63.7515(g)]

i. At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
[40 CFR 63.7500(a)(3)]

Work Practice Standards (without oxygen trim option) [15A NCAC 02Q .0314]

j. The Permittee shall conduct a tune-up annually as specified below:

i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled or unscheduled shutdown.

ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown).

iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject.

v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

[40 CFR 63.7500(a), 63.7540(a)(10)]

k. For this source, each annual tune-up shall be conducted no more than 13 months after the previous tune-up. The initial tune-up shall be conducted no later than 13 months after the initial startup of the source. [40 CFR 63.7515(d)]

l. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.[40 CFR 63.7540(a)(13), 63.7515(g)]

m. At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
[40 CFR 63.7500(a)(3)]

Recordkeeping Requirements [15A NCAC 02Q .0314]

n. The Permittee must keep the following:

i. A copy of each notification and report submitted to comply with this subpart, including all documentation

supporting any Initial Notification or Notification of Compliance Status, or semiannual compliance report that has been submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.7555(a)(1)]

ii. Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (A) through (C) below:
   (A) The concentrations of carbon monoxide in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
   (B) A description of any corrective actions taken as a part of the tune-up; and
   (C) The type and amount of fuel used over the 12 months prior to the annual adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
   [40 CFR 63.7540(a)(10)(vi)]

iii. The associated records for **Section 2.1 G.2.5.e through m,** above.

o. The Permittee shall:
   i. maintain records in a form suitable and readily available for expeditious review;
   ii. keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record; and
   iii. keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records offsite for the remaining 3 years.
   [40 CFR 63.7560, 63.10(b)(1)]

Reporting Requirements [15A NCAC 02Q .0314]

p. The Permittee shall submit compliance reports to the DAQ on an annual basis. The first report shall cover the period beginning on the compliance date specified in condition d. and ending on the earliest December 31st. Subsequent annual reports shall cover the periods from January 1 to December 31. The Permittee shall submit the compliance reports postmarked on or before January 30. [40 CFR 63.7550(a), (b), 63.10(a)(4), (5)]

q. The compliance report must also be submitted electronically via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/).) You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (http://www.epa.gov/ttn/chief/cedri/index.html), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in §63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI.
   [40 CFR 63.7550(h)(3)]

r. The compliance report must contain the following information:
   i. Company name and address;
   ii. Process unit information, emissions limitations, and operating parameter limitations;
   iii. Date of report and beginning and ending dates of the reporting period;
   iv. Include the date of the most recent tune-up for each unit required according to **Section 2.1 G.2.f. and j.** Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown.
   v. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
   [40 CFR 63.7550(a) and (c), Table 9]

6. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded for the Lamination Thermal Oil Heater. These BACT limits shall apply at all times.

Table 2.1 G.2.2 – BACT

Emission Source ID No. and Description	Pollutants	Emission Limits	Control Technology
Lamination Thermal Oil Heater: Natural gas-fired Backup Thermal Oil Heater with low NOx burners (20.5 MMBtu/hr heat input capacity) for Lamination **(ID No. 116.011)**	NOx	0.10 lb/MMBtu heat input	Low NO_X burners Good Combustion, Operating and Maintenance practices
	CO	0.02 lb/MMBtu heat input	Good Combustion, Operating and Maintenance practices
	VOC	0.0054 lb/MMBtu heat input	Good Combustion, Operating and Maintenance practices
	PM_{10}	0.0092 lb/MMBtu heat input	Good Combustion, Operating and Maintenance practices
	$PM_{2.5}$	0.0082 lb/MMBtu heat input	Good Combustion, Operating and Maintenance practices
	opacity	20 percent	Good Combustion, Operating and Maintenance practices
	Facility wide GHGs **See Section 2.2 A.1.1**	388,187 tpy CO2e (12-month rolling average) (total for facility)	Fuel Substitution (use of natural gas (low carbon intensity) Good Combustion, Operating and Maintenance practices

Testing (NO_x, CO, VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

b. If emissions testing is required for NOx, CO, VOC, PM_{10}, $PM_{2.5}$ and opacity, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping (NO_x, CO, VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

c. NO_x, CO, VOC, PM_{10}, $PM_{2.5}$ and opacity emissions from the Thermal Oil Heater in Table 2.1.G.2.1-Affected Source, above, shall be controlled as presented in Table 2.1.G.2.2-BACT, above.

d. The results of inspection and maintenance activities shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative of DAQ upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection;
   iii. the results of any maintenance performed; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

e. The monitoring and recordkeeping requirements in Section 2.1 G.2.5.f through o of the MACT Subpart DDDDD shall be sufficient to ensure compliance with 15A NCAC 02D .0530;

f. The monitoring and recordkeeping requirements in this Section shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

Reporting (PM_{10}, $PM_{2.5}$, VOC, CO, NOx, opacity, GHGs) [15A NCAC 02Q .0314]

g. The Permittee shall submit the results of any maintenance performed on the Lamination Thermal Oil Heater in Table 2.1 G.2.2 – BACT, above, within 30 days of a written request by the DAQ.

h. The reporting requirements in Section 2.1 G.2.5.p through r, above, of the MACT Subpart DDDDD shall be sufficient to ensure compliance with 15A NCAC 02D .0530; and

i. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 G.2.6.c through f, above, postmarked on or before January 30 of each calendar year for the preceding six-month period

between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

G.3 Lamination Lines and Warehouse, Sawing, Packaging and Dispatch

Table 2.1 G.3.1 - Affected Sources

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Particleboard Lamination			
116.021	Lamination line with press 1	CD 116.021	One bagfilter (4,520 square feet of filter area)
116.031	Lamination line with press 2	CD 116.031	One bagfilter (4,520 square feet of filter area)
117.011	Lamination line with press 3	CD 117.011	One bagfilter (4,520 square feet of filter area)
117.021	Lamination line with press 4	CD 117.021	One bagfilter (4,520 square feet of filter area)
117.041	Dust and Granulate to Silo 167 Conveyance System	CD 117.041	One bagfilter (427 square feet of filter area)
Warehouse, Sawing, Packaging and Dispatch			
118.011	Saw Extraction	CD 118.011	One bagfilter (3,390 square feet of filter area)
118.021	Saw Offcut Conveyance System to Silo 162	CD 118.021	One bagfilter (264 square feet of filter area)
118.031	Sawing Dust Conveyance System		

The following table provides a summary of limits and/or standards for the above emission sources described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	adequate duct work and properly designed collectors Affected facilities: Sources 117.041, 118.011, 118.021, 118.031	15A NCAC 02D .0512
PM	$E = 4.10P^{0.67}$ or $E = 55.0(P)^{0.11} - 40$ where; E = allowable emission rate in pounds per hour P = process weight in tons per hour Affected facilities: Sources 116.021, 116.031, 117.011, 117.021	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521
VOCs, $PM_{2.5}$, PM_{10}	Best Available Control Technology	15A NCAC 02D .0530
HAPs	No applicable requirements Sources 117.041, 118.011, 118.021, 118.031	15A NCAC 02D .1111 (40 CFR Part 63 Subpart DDDD)
	No applicable requirements Sources 116.021, 116.031, 117.011, 117.021	15A NCAC 02D .1111 (40 CFR Part 63 Subpart JJJJ)
Odors	**State Enforceable Only** Odorous emissions must be controlled - See Section 2.2 A.1.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0512: PARTICULATES FROM WOOD PRODUCTS FINISHING PLANTS

a. The Permittee shall not cause, allow, or permit particulate matter caused by the working, sanding, or finishing of wood to be discharged from any stack, vent, or building into the atmosphere without providing, as a minimum for its

collection, adequate duct work and properly designed collectors. In no case shall the ambient air quality standards be exceeded beyond the property line.

Monitoring [15A NCAC 02Q .0314]

b. Particulate matter emissions from the sources in Table 2.1 G.3.1 – Affected Sources, above, shall be controlled as presented.
c. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer, if any. As a minimum, the inspection and maintenance program shall include::
   i. monthly external inspection of the ductwork, cyclones, and/or bagfilters noting the structural integrity; and
   ii. annual (for each 12-month period following the initial inspection) internal inspection of the bagfilters noting the structural integrity and the condition of the filters.

Recordkeeping [15A NCAC 02Q .0314]

d. The results of inspection and maintenance for the cyclones, and bag filters shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection; and
   iii. the results of maintenance performed on any control device.

Reporting [15A NCAC 02Q .0314]

e. The Permittee shall submit the results of any maintenance performed on the control devices in Table 2.1.G.3.1 – Affected Sources, above, within 30 days of a written request by the DAQ.
f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 G.3.1.b through d, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0515: PARTICULATE EMISSIONS FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources that are discharged into the atmosphere shall not exceed an allowable emission rate as calculated by the following equations:

Process Rate	Allowable Emission Rate Equation
Less than or equal to 30 tons per hour	$E = 4.10 \times P^{0.67}$
Greater than 30 tons per hour	$E = 55.0(P)^{0.11} - 40$

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring [15A NCAC 02Q .0314]

c. Particulate matter emissions from the emission sources in Table 2.1.G.3.1 – Affected Sources, above, shall be controlled as presented in Table 2.1.G.3.1 – Affected Sources, above.
d. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
   ii. an annual (for each 12-month period following the initial inspection) internal inspection of the bagfilter's structural integrity.

Recordkeeping [15A NCAC 02Q .0314]

e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection;
   iii. the results of any maintenance performed on any control device; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

Reporting [15A NCAC 02Q .0314]

f. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.
g. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section 2.1 G.3.2.c through e, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring [15A NCAC 02Q .0314]

c. To ensure compliance, once a week the Permittee shall observe on a weekly basis, the following emission points for any visible emissions above normal:

Emission Source Description and ID No.	Emission Point ID No.
Lamination line 1	116.02
Lamination line 2	
Lamination line 3	
Lamination line 4	
Dust and Granulate to Silo 167 Conveyance System	116.04
Saw Extraction	116.02
Saw Offcut Conveyance System to Silo 162	118.02
Sawing Dust Conveyance System	118.02

The weekly observations must be made for each week of the calendar year period to ensure compliance with this requirement. The Permittee shall establish "normal" for these sources in the first 30 days following the beginning of operation. If visible emissions from this source are observed to be above normal, the Permittee shall either:
   i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given above.

Recordkeeping [15A NCAC 02Q .0314]

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

Reporting [15A NCAC 02Q .0314]

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section 2.1 G.3.3.c and d, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded for the Lamination Lines and Warehouse, Sawing, Packaging and Dispatch Sources. These BACT limits shall apply at all times.

Table 2.1 G.3.2 – BACT

Emission Source ID No.	Emission Source Description	Pollutants	Emission Limits	Control Technology
Lamination Lines and Warehouse, Sawing, Packaging and Dispatch				
116.021 116.031 117.011 117.014 117.041 118.011 118.021 118.031	Lamination Line 1 Lamination Line 2 Lamination Line 3 Lamination Line 4 Dust and Granulate to Silo 167 Conveyance System Saw Extraction Saw Offcut Conveyance System to Silo 162 Sawing Dust Conveyance System	VOC	**Total for Lamination Lines and Warehouse, Sawing, Packaging and Dispatch Sources** 0.32 lb/hr 1.40 tpy	Good Design, Operating and Maintenance practices
		PM_{10}	**For Each Source** 0.002 gr/dscf **Total for Lamination Lines and Warehouse, Sawing, Packaging and Dispatch Sources** 2.43 lb/hr 10.63 tpy	Bagfilter Good Design, Operating and Maintenance practices for Lamination Lines
		$PM_{2.5}$	**For Each Source** 0.008 gr/dscf **Total for Lamination Lines and Warehouse, Sawing, Packaging and Dispatch Sources** 0.97 lb/hr 4.25 tpy	Bagfilter Good Design, Operating and Maintenance practices for Lamination Lines
		opacity	**For Each Source** 20 percent	Bagfilter Good Design, Operating and Maintenance practices

Testing (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

b. If emissions testing is required for VOC, PM_{10}, $PM_{2.5}$ and opacity emissions, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

c. VOC, PM_{10}, $PM_{2.5}$ and opacity emissions from the Lamination Lines and Warehouse, Sawing, Packaging and Dispatch Sources in Table 2.1.G.3.1 -Affected Sources, above, shall be controlled as presented in Table 2.1.G.3.2-BACT, above.

d. The monitoring/recordkeeping requirements in Section 2.1 G.3.1 b through d, Section 2.1 G.3.2 c through e, and 2.1 G.3.3 c and d, above, shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

Reporting (VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

g. The reporting requirements in Section 2.1 G.3.1 e through f, Section 2.1 G.3.2 f and g, and Section 2.1 G.3.3 e, above, shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

H. Site-wide Emergency Generators and Fire Water Pumps

Table 2.1 H.1 – Affected Sources

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Site Emergency Generators and Fire Water Pumps			
011.011	Diesel-fired Waste Water Treatment Area Emergency Generator (671 maximum brake horsepower)	NA	NA
105.011	Diesel-fired Biomass Fuel Preparation Area Emergency Generator (671 maximum brake horsepower) Generator	NA	NA
111.091	Diesel-fired Particleboard Press Area Emergency Generator (671 maximum brake horsepower)	NA	NA
112.081	Diesel-fired Finishing Area Emergency Generator (671 maximum brake horsepower)	NA	NA
116.051	Diesel-fired Lamination Area Emergency Generator (671 maximum brake horsepower)	NA	NA
010.011	Diesel-fired Emergency Sprinkler Fire Water Pump 1 (215 maximum brake horsepower)	NA	NA
010.021	Diesel-fired Emergency Sprinkler Fire Water Pump 2 (215 maximum brake horsepower)	NA	215
010.031	Diesel-fired Emergency Hydrant Fire Water Pump (215 maximum brake horsepower)	NA	215

Regulated Pollutant	Limits/Standards	Applicable Regulation
SO_2	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity when averaged over a six-minute period	15A NCAC 02D .0521
NMHC and NOx, CO, PM,	Comply with the NSPS IIII emission standards by purchasing an engine certified to the applicable emission standards. The engine shall be installed and configured according to the manufacturer's emission-related specifications	15A NCAC 02D .0524 (40 CFR 60, Subpart IIII)
NO_x, CO, VOC, PM_{10}, $PM_{2.5}$, opacity, GHGs	Best Available Control Technology For Facility-wide GHGs - See Section 2.2 A.1.1	15A NCAC 02D .0530
HAPs	Comply with the requirements of 15A NCAC 02D .0524 (40 CFR 60, Subpart IIII)	15A NCAC 02D .1111 (40 CFR 63, Subpart ZZZZ)

Regulated Pollutant	Limits/Standards	Applicable Regulation
Odors	**State Enforceable Only** Odorous emissions must be controlled - See Section 2.2 A.1.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from the sources in Table 2.1.H.1, above, shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0314]

c. No monitoring, recordkeeping or reporting is required for sulfur dioxide emissions from the firing of diesel fuel in these sources.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0314]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0314]

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of diesel fuel in these sources.

3. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

Applicability [15A NCAC 02Q .0314, 40 CFR 60.4200(a)(2)(i)]

a. For emergency generators **(011.011, 105.011, 111.091, 112.081, and 116.051)**, the Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines," including Subpart A "General Provisions."

General Provisions [15A NCAC 02Q .0314]

b. Pursuant to 40 CFR 60 .4218, The Permittee shall comply with the General Provisions of 40 CFR 60 Subpart A as presented in Table 8 of 40 CFR 60 Subpart IIII.

Emission Standards [15A NCAC 02Q .0314]

c. The Permittee shall comply with the emission standards 40 CFR 60.4202 for all pollutants, for the same model year and maximum engine power for the engines. [40 CFR 60.4205(b)]

Fuel Requirements [15A NCAC 02Q .0314]

d. The Permittee shall use diesel fuel in the engines that meets the requirements of 40 CFR 80.510(b) including:
   i. a maximum sulfur content of 15 ppm; and
   ii. a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.
   [40 CFR 60.4207(b)]

Testing [15A NCAC 02Q .0314]

e. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring [15A NCAC 02Q .0314]

f. These engines have the following monitoring requirements:
   i. The engines shall be equipped with a non-resettable hour meter prior to startup. [40 CFR 60.4209(a)]
   ii. The engines, if equipped with a diesel particulate filter, must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engines is approached. [40 CFR 60.4209(b)]

Compliance Requirements [15A NCAC 02Q .0508(b)]

g. The Permittee shall:
   i. operate and maintain the engines and control devices according to the manufacturer's emission related-written instructions over the entire life of the engines;
   ii. change only those emission-related settings that are permitted by the manufacturer; and
   iii. meet the requirements of 40 CFR 89, 94 and/or 1068 as applicable.
   [40CFR 60.4206 and 60.4211(a)]

h. The Permittee shall comply with the emission standards in **Section 2.1 H.1. c**, above, by purchasing engines certified to the emission standards in condition c for the same model year and maximum engine power. The engines shall be installed and configured according to the manufacturer's emission-related specifications. [40CFR 60.4211(c)]

i. In order for the engines to be considered an emergency stationary ICE under this condition, any operation other than emergency operation, maintenance and testing, and operation in non- emergency situations for 50 hours per year, as described below, is prohibited.
   (1) There is no time limit on the use of emergency stationary ICE in emergency situations.
   (2) The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraph (i)(2)(i) of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (i)(3) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph (i)(2).
   (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engines. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
   (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (i)(2) of this condition. Except as provided in paragraph (i)(3)(i) of this condition, the 50 hours per calendar year for non- emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
   (i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
      (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
      (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
      (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
      (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
      (E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[40 CFR 60.4211(f)]

Recordkeeping [15A NCAC 02Q .0314]

k. The results of inspection and maintenance made pursuant to **Section 2.1 H.3.g**, above, shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:

i. the date and time of each recorded action;
ii. the results of each inspection;
iii. the results of any maintenance performed on the engine;
iv. any variance from manufacturer's recommendations, if any, and corrections made;
v. the hours of operation of the engine in emergency and non-emergency service; [40 CFR 60.4214(b)]
vi. if a PM filter is used, records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached [40 CFR60.4214(c)]; and
vii. documentation from the manufacturer that the engine is certified to meet the emission standards in **Section 2.1 H.3.c**, above.

Reporting [15A NCAC 02Q .0314]

l. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 H.3.f through i, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of noncompliance with the requirements of this permit shall be clearly identified.

m. If the Permittee owns or operates an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates for the purposes specified in **Section 2.1 H.3.i.(3)(i)**, above, the Permittee shall submit an annual report according to the requirements at 40 CFR 60.4214(d). Thus report must be submitted to the Regional Supervisor and the EPA. [40 CFR60.4214(d)]

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

Applicability [15A NCAC 02Q .0314, 40 CFR 60.4200(a)(2)(ii)]

a. For the fire pump engines **(010.011, 010.021, and 010.031)**, the Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines," including Subpart A "General Provisions."

General Provisions [15A NCAC 02Q .0314]

b. Pursuant to 40 CFR 60 .4218, The Permittee shall comply with the General Provisions of 40 CFR 60 Subpart A as presented in Table 8 of 40 CFR 60 Subpart IIII.

Emission Standards [15A NCAC 02Q .0314]

c. The Permittee shall comply with the emission standards in Table 4 of NSPS subpart IIII for all pollutants, for the same model year and maximum engine power for this engine. [40CFR 60.4205(c)]

Fuel Requirements [15A NCAC 02Q .0314]

d. The Permittee shall use diesel fuel in the engine with:
i. a maximum sulfur content of 15 ppm; and
ii. a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.
[40 CFR 60.4207(b) and 40 CFR 80.510(b)]

Testing [15A NCAC 02Q .0314]

e. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring [15A NCAC 02Q .0314]

f. The engine has the following monitoring requirements:
i. The engines shall be equipped with a non-resettable hour meter prior to startup. [40CFR 60.4209(a)]
ii. The engine, if equipped with a diesel particulate filter, must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. [40CFR 60.4209(b)]

Compliance Requirements [15A NCAC 02Q .0508(b)]

g. The Permittee shall:

i. operate and maintain the engines and control devices according to the manufacturer's emission related-written instructions over the entire life of the engine;
ii. change only those emission-related settings that are permitted by the manufacturer; and
iii. meet the requirements of 40 CFR 89, 94 and/or 1068 as applicable.
[40CFR 60.4206 and 60.4211(a)]

h. The Permittee shall comply with the emission standards in condition c. by purchasing an engine certified to the emission standards in **Section 2.1 H.4.c**, above. The engine shall be installed and configured according to the manufacturer's specifications. [40CFR 60.4211(c)]

i. In order for the engine to be considered an emergency stationary ICE under this condition, any operation other than emergency operation, maintenance and testing, and operation in non- emergency situations for 50 hours per year, as described below, is prohibited.
(1) There is no time limit on the use of emergency stationary ICE in emergency situations.
(2) The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraph (i(2)(i) of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (i)(3) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph.
(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (i)(2) of this condition. Except as provided in paragraph (i)(3)(i) of this condition, the 50 hours per calendar year for non- emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
(D) The power is provided only to the facility itself or to support the local transmission and distribution system.
(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.
[40CFR 60.4211(f)]

Recordkeeping [15A NCAC 02Q .0314]

k. To assure compliance, the Permittee shall perform inspections and maintenance on the engine as recommended by the manufacturer per 40 CFR 60.4206 and 40 CFR 60.4211(a). The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
i. the date and time of each recorded action;
ii. the results of each inspection;
iii. the results of any maintenance performed on the engine;
iv. any variance from manufacturer's recommendations, if any, and corrections made;
v. the hours of operation of the engine in emergency and non-emergency service. [40 CFR 60.4214(b)]
vi. if a PM filter is used, records of any corrective action taken after the backpressure monitor has notified the owner or

operator that the high backpressure limit of the engine is approached [40 CFR60.4214(c)]; and

vii. documentation from the manufacturer that the engine is certified to meet the emission standards in **Section 2.1 H.4.c**, above.

Reporting [15A NCAC 02Q .0314]

l. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 H.4.f through k, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of noncompliance with the requirements of this permit shall be clearly identified.

m. If the Permittee owns or operates an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates for the purposes specified in **Section 2.1 H.4.i.(3)(i)**, the Permittee shall submit an annual report according to the requirements at 40 CFR 60.4214(d). This report must be submitted to the Regional Supervisor and the EPA. [40 CFR60.4214(d)]

5. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR 63.6585, §63.6590(a)(2)(i)]

a. For these emission sources **(011.011, 105.011, 111.091, 112.081, and 116.051)** (new stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart ZZZZ "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines" and Subpart A "General Provisions."

Stationary RICE subject to limited requirements

b. Pursuant to §63.6590(b)(1)(i), these emergency RICE do not have to meet the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A except for the initial notification requirements of §63.6645(f).

Notification Requirements [15A NCAC 02Q. 0508(f)]

c. Pursuant to §63.6645(c) and (f), the Permittee shall submit an initial notification for each source in accordance with §63.6590(b), no later than 120 calendar days after construction of each source and include the information in §§63.9(b)(2)(i) through (iv) and a statement that the stationary RICE has no additional requirements and explain the basis of the exclusion.

6. 15A NCAC 02D .1111 MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR 63.6585, 6590(a)(2)(ii)]

a. For these engines **(010.011, 010.021, and 010.031)** (stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions) the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart ZZZZ, "National Emission Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines" and Subpart A "General Provisions."

Stationary RICE subject to Regulations under 40 CFR Part 60 [15 A NCAC 2Q. 0508(f)]

b. Pursuant to 40 CFR 63.6590(c)(6), these sources must meet the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A by meeting the requirements of 40 CFR part 60 subpart IIII. No further requirements apply for these engines under 40 CFR 63 Subpart ZZZZ and Subpart A.

7. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded for the Site Emergency Generators and Fire Water Pumps. These BACT limits shall apply at all times.

Table 2.1 H.1.2 – BACT

Emission Source ID No.	Emission Source Description	Pollutants	Emission Limits	Control Technology
Site Emergency Generators and Fire Water Pumps				
011.011 105.011 111.091 112.081 116.051 010.011 010.021 010.031	Five diesel-fired Emergency Generators Three diesel-fired Emergency Fire Water Pumps	NOx	As per applicable NSPS and MACT standards	Compliance with applicable NSPS and MACT standards Good Combustion, Operating and Maintenance practices (limiting operating hours; used for emergencies)
		CO		
		VOC		
		PM_{10}		
		$PM_{2.5}$		
		opacity	20 percent	
		Facility wide GHGs **See Section 2.2 A.1**	388,187 tpy CO2e (12-month rolling average) (total for facility)	

Testing (NO_x, CO, VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

b. If emissions testing is required for NOx, CO, PM_{10}, $PM_{2.5}$, VOC and opacity, the testing shall be performed in accordance with General Condition 17.

Operating Restrictions

c. The Permittee shall limit the operation of these engines outside of the hours of 9:00-17:00 daily except for emergency operation.

Monitoring/Recordkeeping (NO_x, CO, VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

c. NOx, CO, VOC, PM_{10}, $PM_{2.5}$ and opacity emissions from the Diesel Fired Engines in Table 2.1 H.1-Affected Sources, above, shall be controlled as presented in Table 2.1 H.2-BACT, above.

d. The Permittee shall meet the requirements of NSPS IIII for each engine, as specified in Sections 2.1 H.3 and 4, above.

e. The Permittee shall maintain records of the date, time and duration of the non-emergency operation and commissioning of each engine. The records shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request.

f. The monitoring/recordkeeping requirements in Sections 2.1 H.3 and 4, above, shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

Reporting (NO_x, CO, VOC, PM_{10}, $PM_{2.5}$, opacity) [15A NCAC 02Q .0314]

g. The reporting requirements in Section 2.1 H.3 and 4, above, shall be sufficient to ensure compliance with 15A NCAC 02D .0530; and

h. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 H.7.c through f, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of noncompliance with the requirements of this permit shall be clearly identified. The report shall also include the date, time and duration of the non-emergency operation and commissioning of each engine.

I. Miscellaneous Storage Tanks

I.1 Storage Tanks

Table 2.1 I.1.1 – Affected Sources

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Storage Tanks			
115.01.01	MR Resin Tank 1	NA	NA
115.01.02	MR Resin Tank 2	NA	NA
115.01.03	MR Resin Tank 3	NA	NA
115.01.04	MR Resin Tank 4	NA	NA
115.01.05	MR Resin Tank 5	NA	NA
115.01.06	MR Resin Tank 6	NA	NA
115.01.07	MR Resin Tank 7	NA	NA
115.01.08	MR Resin Tank 8	NA	NA
111.01.01	Urea Formaldehyde Glue Tank 1	NA	NA
111.01.02	Urea Formaldehyde Glue Tank 2	NA	NA
111.01.03	Urea Formaldehyde Glue Tank 3	NA	NA
111.01.04	Urea Formaldehyde Glue Tank 4	NA	NA
111.01.05	Urea Formaldehyde Glue Tank 5	NA	NA
111.01.06	Urea Formaldehyde Glue Tank 6	NA	NA
111.01.07	Urea Formaldehyde Glue Tank 7	NA	NA
111.01.08	Urea Formaldehyde Glue Tank 8	NA	NA
111.05.01	Ammonium Sulfate Tank 1	NA	NA
111.05.02	Ammonium Sulfate Tank 2	NA	NA
111.08.01	Ammonium Sulfate Totes 1-30	NA	NA
111.03.01	Paraffin Emulsion Tank 1	NA	NA
111.03.02	Paraffin Emulsion Tank 2	NA	NA
111.04.01	Hardener Tank 1	NA	NA
111.04.02	Hardener Tank 2	NA	NA
111.04.03	Hardener Tank 3	NA	NA
111.09.01	Release Agent Tote	NA	NA
111.02.01	Isocyanate Tank 1	NA	NA
111.02.02	Isocyanate Tank 2	NA	NA
111.06.01	Urea Tank 1	NA	NA
111.06.02	Urea Tank 2	NA	NA
111.07.01	Urea Totes 1-30	NA	NA
111.10.01	Pigment Tank 1	NA	NA
115.03.01	Melamine Hardener Tank	NA	NA
115.03.02	Urea Hardener Tank	NA	NA
115.03.03	Surface Activation Tank	NA	NA
115.03.04	Separating Agent Tank	NA	NA
115.02.01	Urea Resin Tank 1	NA	NA
115.02.02	Urea Resin Tank 2	NA	NA
115.02.03	Urea Resin Tank 3	NA	NA
115.02.04	Urea Resin Tank 4	NA	NA
115.02.05	Urea Resin Tank 5	NA	NA

115.02.06	Urea Resin Tank 6	NA	NA
115.02.07	Urea Resin Tank 7	NA	NA
115.03.05	Additive Tank 1	NA	NA
115.03.06	Additive Tank 2	NA	NA
DT	Diesel Tank 1	NA	NA
LPGT	LPG Tank 1	NA	NA

The following table provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
VOC	BACT Limitations	15A NCAC 02D .0530
TAPs	**State Enforceable Only** Control of Toxic Air Pollutants - See Section 2.2 A.1.2	15A NCAC 02D .1100
Odors	**State Enforceable Only** Odorous emissions must be controlled - See Section 2.2 A.1.4	15A NCAC 02D .1806

1. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded for emissios units included as Miscellaneous Storage Tanks. These BACT limits shall apply at all times.

Table 2.1 I.1.2 - BACT

Emission Source ID No.	Emission Source Description		Pollutants	Emission Limits	Control Technology
	Storage Tanks				
115.01.01	MR Resin Tank 1		VOC	0.53 lb/hr and 1.97 tons/year all tanks combined	Good Design, Operating and Maintenance practices
115.01.02	MR Resin Tank 2				
115.01.03	MR Resin Tank 3				
115.01.04	MR Resin Tank 4				
115.01.05	MR Resin Tank 5				
115.01.06	MR Resin Tank 6				
115.01.07	MR Resin Tank 7				
115.01.08	MR Resin Tank 8				
111.01.01	Urea Formaldehyde Glue Tank 1				
111.01.02	Urea Formaldehyde Glue Tank 2				
111.01.03	Urea Formaldehyde Glue Tank 3				
111.01.04	Urea Formaldehyde Glue Tank 4				
111.01.05	Urea Formaldehyde Glue Tank 5				
111.01.06	Urea Formaldehyde Glue Tank 6				
111.01.07	Urea Formaldehyde Glue Tank 7				
111.01.08	Urea Formaldehyde Glue Tank 8				
111.05.01	Ammonium Sulfate Tank 1				
111.05.02	Ammonium Sulfate Tank 2				
111.08.01	Ammonium Sulfate Totes 1-30				
111.03.01	Paraffin Emulsion Tank 1				
111.03.02	Paraffin Emulsion Tank 2				
111.04.01	Hardener Tank 1				
111.04.02	Hardener Tank 2				
111.04.03	Hardener Tank 3				
111.09.01	Release Agent Tote				
111.02.01	Isocyanate Tank 1				
111.02.02	Isocyanate Tank 2				
111.06.01	Urea Tank 1				
111.06.02	Urea Tank 2				
111.07.01	Urea Totes 1-30				
111.10.01	Pigment Tank 1				
115.03.01	Melamine Hardener Tank				
115.03.02	Urea Hardener Tank				
115.03.03	Surface Activation Tank				
115.03.04	Separating Agent Tank				
115.02.01	Urea Resin Tank 1				
115.02.02	Urea Resin Tank 2				
115.02.03	Urea Resin Tank 3				
115.02.04	Urea Resin Tank 4				
115.02.05	Urea Resin Tank 5				
115.02.06	Urea Resin Tank 6				
115.02.07	Urea Resin Tank 7				
115.03.05	Additive Tank 1				
115.03.06	Additive Tank 2				
DT	Diesel Tank 1				
LPGT	LPG Tank 1				

Testing (VOC) [15A NCAC 02Q .0314]

b. If emissions testing is required for VOC, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting (VOC) [15A NCAC 02Q .0314]

c. VOC emissions from the Miscellaneous Storage Tanks in Table 2.1. I.1-Affected Sources, above, shall be controlled as presented in Table 2.1 I.2-BACT, above.
d. No monitoring, recordkeeping or reporting are required.

2.2 - Multiple Emission Sources Specific Limitations and Conditions

A.1 Facility-wide affected emission sources

The following table provides a summary of limits and standards applicable facility-wide:

Regulated Pollutant	Limits/Standards	Applicable Regulation
GHGs (as CO_2e)	Best Available Control Technology See Section 2.2 A.1.1	15A NCAC 02D .0530
TAPs	**State Enforceable Only** Control of Toxic Air Pollutants - See Section 2.2 A.1.2	15A NCAC 02D .1100
HAPs	National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products See Section 2.2 A.1.3	15A NCAC 02D .1111 (40 CFR Part 63 Subpart DDDD)
Odors	**State Enforceable Only** Odorous emissions must be controlled See Section 2.2 A.1.4	15A NCAC 02D .1806

Table 2.2 A.1.1 – BACT GHG Emissions-Affected Sources

Emission Source ID No.	Emission Source Description	Pollutants	Emission Limits	Control Technology
107.011	Biomass Combustion and Chip Drying: Natural gas/ biomass-fired Biomass Energy Recovery Furnace (ERF) exhausting to	GHGs (as CO_2e)	388,187 tpy CO2e (12-month rolling average) (total for facility) [Includes all periods of operation (normal, startup, shutdown, and malfunction]	Fuel Substitution (use of natural gas (low carbon intensity); (use of biomass fuel is considered BACT for GHGs; also use of natural gas (low carbon intensity)) Engines-Compliance with applicable NSPS and MACT standards Good Combustion, Operating and Maintenance practices Engines-(limiting operating hours; used for emergencies)
109.011/109.012	Natural gas/ biomass-fired rotary Surface Layer Dryer			
109.021/109.022	Natural gas/ biomass-fired rotary Core Layer Dryer)			
111.011	Natural gas-fired Backup Thermal Oil Heater with low NOx burners (30 MMBtu/hr heat input capacity) for Particleboard Press			
116.011	Natural gas-fired Backup Thermal Oil Heater with low NOx burners (20.5 MMBtu/hr heat input capacity) for Lamination			
011.011	Diesel-fired Waste Water Treatment Area Emergency Generator (671 maximum brake horsepower)			
105.011	Diesel-fired Biomass Fuel Preparation Area Emergency (671 maximum brake horsepower) Generator			
111.091	Diesel-fired Particleboard Press Area Emergency Generator (671 maximum brake horsepower)			
112.081	Diesel-fired Finishing Area Emergency Generator (671 maximum brake horsepower)			
116.051	Diesel-fired Lamination Area Emergency Generator (671 maximum brake horsepower)			
010.011	Diesel-fired Emergency Sprinkler Fire Water Pump 1 (215 maximum brake horsepower)			
010.021	Diesel-fired Emergency Sprinkler Fire Water Pump 2 (215 maximum brake horsepower			
010.031	Diesel-fired Emergency Hydrant Fire Water Pump (215 maximum brake horsepower)			
CD-108.02	Regenerative Thermal Oxidizer (RTO)			

1. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION
15A NCAC 02D .0544: PREVENTION OF SIGNIFICANT DETERIORATION FOR GREENHOUSE GASES

a. The Permittee shall comply with emission limits, testing, monitoring, recordkeeping, and reporting requirements, in accordance with 15A NCAC 02D .0530, "Prevention of Significant Deterioration of Air Quality" and 02D .0544 "Prevention of Significant Deterioration for Greenhouse Gases".
b. The Permittee shall comply with the following Best Available Control Technology (BACT) requirements for the sources in Table 2.2 A.1.1 - BACT GHG Emissions-Affected Sources, above.

Monitoring/Recordkeeping [15A NCAC 02Q .0314]

c. GHG emissions from the sources listed above shall be controlled as presented in Table 2.2 A.1.1-- BACT GHG Emissions-Affected Sources, above.
d. The Permittee shall estimate GHG emissions (tons) as CO_2e, on a monthly basis. The Permittee shall determine each month, consecutive rolling 12-months' total GHG emissions, using the emissions data for the current month and the previous 11-months.
e. The Permittee shall determine each month, consecutive rolling12-months' total GHG emissions, using the emissions data for the current month and the previous 11-months.

i. The Permittee shall monitor CO_2 emissions from the above sources by monitoring hours of operations and/or fuels consumed.
ii. The Permittee shall calcualte N_2O and CH_4 emissions from the above sources, using applicable emissions factors in Table C-2 to Subpart C of 40 CFR 98.
iii. The Permittee shall use Global Warming Potentials of N_2O and CH4, in accordance with Table A-1 to Subpart A of 40 CFR 98, to convert emissions of these gases in the unit of CO_2e.

Reporting [15A NCAC 02Q .0314]

f. The Permittee shall submit a written reportof the emissions (tons) of GHG as CO_2e per consecutive rolling 12-month periods, for the above sources., postmarked on or before the 30th day following the end of each 6-month period:
g. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.2 A.1.c through e, above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

Table 2.2 A.2.1 -Storage Tanks

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Storage Tanks			
115.01.01	MR Resin Tank 1	NA	NA
115.01.02	MR Resin Tank 2	NA	NA
115.01.03	MR Resin Tank 3	NA	NA
115.01.04	MR Resin Tank 4	NA	NA
115.01.05	MR Resin Tank 5	NA	NA
115.01.06	MR Resin Tank 6	NA	NA
115.01.07	MR Resin Tank 7	NA	NA
115.01.08	MR Resin Tank 8	NA	NA
111.01.01	Urea Formaldehyde Glue Tank 1	NA	NA
111.01.02	Urea Formaldehyde Glue Tank 2	NA	NA
111.01.03	Urea Formaldehyde Glue Tank 3	NA	NA
111.01.04	Urea Formaldehyde Glue Tank 4	NA	NA
111.01.05	Urea Formaldehyde Glue Tank 5	NA	NA
111.01.06	Urea Formaldehyde Glue Tank 6	NA	NA
111.01.07	Urea Formaldehyde Glue Tank 7	NA	NA
111.01.08	Urea Formaldehyde Glue Tank 8	NA	NA
111.05.01	Ammonium Sulfate Tank 1	NA	NA
111.05.02	Ammonium Sulfate Tank 2	NA	NA
111.08.01	Ammonium Sulfate Totes 1-30	NA	NA
111.03.01	Paraffin Emulsion Tank 1	NA	NA
111.03.02	Paraffin Emulsion Tank 2	NA	NA
111.04.01	Hardener Tank 1	NA	NA
111.04.02	Hardener Tank 2	NA	NA
111.04.03	Hardener Tank 3	NA	NA
111.09.01	Release Agent Tote	NA	NA
111.02.01	Isocyanate Tank 1	NA	NA
111.02.02	Isocyanate Tank 2	NA	NA
111.06.01	Urea Tank 1	NA	NA
111.06.02	Urea Tank 2	NA	NA
111.07.01	Urea Totes 1-30	NA	NA
111.10.01	Pigment Tank 1	NA	NA
115.03.01	Melamine Hardener Tank	NA	NA
115.03.02	Urea Hardener Tank	NA	NA

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
115.03.03	Surface Activation Tank	NA	NA
115.03.04	Separating Agent Tank	NA	NA
115.02.01	Urea Resin Tank 1	NA	NA
115.02.02	Urea Resin Tank 2	NA	NA
115.02.03	Urea Resin Tank 3	NA	NA
115.02.04	Urea Resin Tank 4	NA	NA
115.02.05	Urea Resin Tank 5	NA	NA
115.02.06	Urea Resin Tank 6	NA	NA
115.02.07	Urea Resin Tank 7	NA	NA
115.03.05	Additive Tank 1	NA	NA
115.03.06	Additive Tank 2	NA	NA
DT	Diesel Tank 1	NA	NA
LPGT	LPG Tank 1	NA	NA

The following table provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
TAPs	**State Enforceable Only** Control of Toxic Air Pollutants Formaldehyde-only - 0.49 pound per hour	15A NCAC 02D .1100

STATE ENFORCEABLE ONLY

2. 15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

a. A facility shall not emit any of the toxic air pollutants found in 15A NCAC 02D .1104 in such quantities that may cause or contribute beyond the premises (adjacent property boundary) to any significant ambient air concentration that may adversely affect human health.

Monitoring/Recordkeeping/[**Reporting** 15A NCAC 02Q .0314]

b. No monitoring recordkeeping or reporting are required.

Table 2.2 A.3.1 – Combined Biomass Energy Recovery Furnace with Core and Surface Layer Dryers

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description	Emission Point ID No.
Biomass Energy Recovery Furnace and Surface Layer Dryer				
107.011 109.011 109.012	Natural gas-fired with low NOx burners (155 million Btu per hour maximum rated heat input) biomass-fired suspension burner (92 million Btu per hour reciprocating grate maximum rated heat input) Biomass Energy Recovery Furnace (ERF) [ID No. 107.011] exhausting to the: Natural gas/dust-fired rotary Surface Layer Dryer [ID No. 109.012] with low NOx burners (103 million Btu per hour heat input capacity) [ID No. 109.011] (Normal Operation)	CD-108.01 CD-108.02	Wet Electrostatic Precipitator Regenerative Thermal Oxidizer	108.01
	Natural gas-fired with low NOx burners (155 million Btu per hour maximum rated heat input) biomass-fired suspension burner (92 million Btu per hour reciprocating grate maximum rated heat input) Biomass Energy Recovery Furnace (ERF) [ID No. 107.011] (Start-up, Shutdown)	CD-108.01	Wet Electrostatic Precipitator NA/Venting directly to Atmosphere	107.012 107.011
	Natural gas/dust fired rotary Surface Layer Dryer [ID No. 109.012] with low NOx burners (103 million Btu per hour heat input capacity) [ID No. 109.011] (Start-up, Shutdown)	NA	NA/Venting directly to Atmosphere	109.011 109.012
Core Layer Dryer				
109.021 109.022	Natural gas/dust-fired rotary Core Layer Dryer [ID No. 109.022] with low NOx burners (137 MMBtu/hr heat input capacity) [ID No. 109.021] (Normal Operation)	CD-108.01 CD-108.02	Wet Electrostatic Precipitator Regenerative Thermal Oxidizer	108.01

	Natural gas/dust-fired rotary Core Layer Dryer [ID No. 109.022] with low NOx burners (137 MMBtu/hr heat input capacity) [ID No. 109.021] (Start-up, Shutdown)	NA	NA/Venting directly to Atmosphere	109.021 109.022

Table 2.2 A.3.2 – Particleboard Press

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description	Emission Source ID No.
111.021	Particleboard Press	CD-111.021	Wet Scrubber	108.01

Table 2.2 A.3.3 – Star Coolers

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description	Emission Source ID No.
Particleboard Product Cooling				
112.011	Star Coolers	NA	NA (Venting directly to Atmosphere)	108.01

3. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [§63.2231]

a. For the emission sources subject to "**MACT Subpart DDDD**" as indicated in the permitted equipment lists 2.2 A.3.1 through 2.2 A.3.3, above,, the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart DDDD. **"**National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products" and Subpart A "General Provisions."

Definitions and Nomenclature [§63.2292]

b. For the purposes of this permit condition, the definitions and nomenclature contained in §63.2292 shall apply.

40 CFR Part 63 Subpart A General Provisions [§63.2290]

c. The Permittee shall comply with the requirements of 40 CFR 63 Subpart A General Provisions according to the applicability of Subpart A to such sources, as identified in Table 10 to 40 CFR Part 63, Subpart DDDD.

Affected Sources Not Subject to Operating Requirements [§63.2252]

d. For process units, not subject to the operating requirements in Sections 2.2 A.3.e through p, below, the Permittee is not required to comply with the compliance options, work practice requirements, performance testing, monitoring, SSM plans, and recordkeeping or reporting requirements of this 40 CFR 63 Subpart DDDD, or any other requirements in 40 CFR 63 Subpart A except for the initial notification requirements in §63.9(b).

Compliance and Operating Requirements [15A NCAC 02Q .0314, 63.2240(b)]

e. The Permittee shall use non-HAP coatings (as defined §63.2292) in its Group 1 miscellaneous coating operations. [Table 3, 40 CFR 63 Subpart DDDD]

Combined Biomass ERF with Dryers

f. The emissions from the drying process units in Table 2.2 A.1, above, and summarized below shall be controlled by the RTO (**ID No. CD-108.02**).

Emission Source ID No.	Emission Source Description
107.011	Natural gas/ biomass-fired Biomass Energy Recovery Furnace (ERF) with low NOx burners (155 million Btu per hour maximum heat input)
109.011/109.012	Surface Layer Dryer with low NOx burners (103 million Btu per hour heat input capacity) and/or (110 million Btu per hour heat input capacity from ERF)
109.021/109.022	Core Layer Dryer with low NOx burners (137 MMBtu/hr heat input capacity)

g. The HAP emissions from the sources in Table 2.2 A.3.1, above, shall be controlled to meet one of the following compliance options: [§63.2240]
   i. Reduce emissions of total HAP, measured as THC (as carbon), by 90 percent; or
   ii. Limit emissions of total HAP, measured as THC (as carbon) , to 20 ppmvd; or
   iii. Reduce methanol emissions by 90 percent; or
   iv. Limit methanol emissions to less than or equal to 1 ppmvd if uncontrolled methanol emissions entering the control device are greater than or equal to 10 ppmvd; or
   v. Reduce formaldehyde emissions by 90 percent; or
   vi. Limit formaldehyde emissions to less than or equal to 1 ppmvd if uncontrolled formaldehyde emissions entering the control device are greater than or equal to 10 ppmvd.

h. For the thermal oxidizer **(ID No. CD-108.02)** the Permittee shall maintain the 3-hour block average firebox temperature above the minimum temperature established during the performance test according to condition s. [§63.2240]

Green Rotary Dryers - Surface Layer Dryer and Core Layer Dryer (ID Nos. 109.011/109.012 and 109.021/109.022)

i. Operating requirements for the Surface Layer Dryer and Core Layer Dryer (process units meeting compliance options with a control device) shall be established and process unit operating parameters according to 40 CFR 63.2262(k)(1) through (k)(3).

j. Maintain the thermal oxidizer 3-hour block average firebox temperature above the minimum temperature established during the performance test as per Table 2 to Subpart DDDD of Part 63.

Particleboard Press (ID No. 111.021) and Star Coolers (ID No. 112.011)

k. Operating requirements for the Particleboard Press and Star Coolers (process units meeting compliance options without a control device) shall be established and process operating parameters according to 63.2262(n)(1) and (n)(2).

l. The Permittee shall maintain on a daily basis the process unit controlling operating parameter(s) within the ranges established during the performance test as per Table 2 to Subpart DDDD of Part 63 and according to §63.2262(n).
   m. The Particleboard Press (**ID No. 111.021**) shall meet the production-based compliance option by emitting less than 0.30 lb of total HAP per thousand square feet of board, ¾" basis [§63.2240]. The Permittee shall not use an add-on control system or wet control device to meet the production-based compliance options.
   n. The Star Coolers (**ID No. 112.011**) shall meet the production-based compliance option by emitting less than 0.014 lb of total HAP per thousand square feet of board, ¾" basis [§63.2240]. The Permittee shall not use an add-on control system or wet control device to meet the production-based compliance options.

o. For the Particleboard Press (**ID No. 111.021**) and Star Coolers (**ID No. 112.011**), the Permittee has chosen the HAP content in the resin as the process unit controlling parameter. The Permittee shall maintain the HAP content of the resins used to levels below those used during the initial compliance demonstration as shown below. The Permittee shall determine the HAP resin levels based on vendor supplied data on a per shipment basis. These values do not apply during subsequent performance testing. [§63.2262(n)]

HAP	Resin content limit (% by weight)
All HAPs	as set by the intial compliance demonstration

Testing [15A NCAC 02Q .0314]

p. If emissions (performance) testing is required, the testing shall be performed in accordance General Condition 17.

q. All initial performance tests shall be conducted pursuant to §63.2260.

r. Any subsequent performance tests shall be conducted pursuant to §63.2262.

s. For the thermal oxidizer **(ID No. CD-180.02)**, the Permittee:
   i. shall conduct the initial performance tests within 180 days following initial startup [§63.2261]; and
   ii. shall establish the minimum firebox temperature during the initial performance tests.

Particleboard Press (ID No. 111.021) and Star Coolers (ID No. 112.011)

t. For the press and coolers, the Permittee shall conduct the initial performance tests to meet the production-based compliance option above within 180 days, according to §63.2267.

General Requirements [15A NCAC 02Q .0314, 63.2250]

u. i. The Permittee must be in compliance with the compliance options, operating requirements, and the work practice requirements in 40 CFR 63 Subpart DDDD at all times, except during periods of process unit or control device startup, shutdown, and malfunction; prior to process unit initial startup; and during the routine control device maintenance exemption specified in condition v. The compliance options, operating requirements, and work practice requirements do not apply during times when the process unit(s) subject to the compliance options, operating requirements, and work practice requirements are not operating, or during periods of startup, shutdown, and malfunction. Startup and shutdown periods must not exceed the minimum amount of time necessary for these events.
   ii. The Permittee must always operate and maintain the affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).
   iii. The Permittee must develop a written Startup, Shutdown, and Malfunction Plan (SSMP) according to the provisions in §63.6(e)(3).

Green Rotary Dryers - Routine Control Device Maintenance Exemption [15A NCAC 02Q .0314]

v. The routine control device maintenance exemption for the control device thermal oxidizer **(ID No. CD-108.02)** shall not exceed 3 percent of annual operating uptime for each process unit controlled (Surface Layer Dryer and Core Layer Dryer **(ID Nos. 109.011 and 109.021)**

Monitoring Requirements [15A NCAC 02Q .0314]

Temperature Monitoring

w. i. The Permittee shall monitor and record the thermal oxidizer firebox temperature thermal oxidizer (**ID No. CD-108.02**) with continuous parameter monitoring systems (CPMS).
   ii. The Permittee shall install, operate, and maintain each temperature CPMS according to §63.2269(a) and (b).

All CPMS

x. i. For the thermal oxidizer (**ID No. CD-108.02**) the Permittee shall determine the 24-hour block average of all recorded readings, calculated after every 24 hours of operation as the average of the evenly spaced recorded readings in the previous 24 operating hours (excluding periods described in subparagraphs ii and iii below. [§63.2270]
   ii. Except for, as appropriate, monitor malfunctions, associated repairs, required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments) the Permittee shall conduct all monitoring in continuous operation at all times that the process unit is operating. For purposes of calculating data averages, the Permittee must not use data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities. The Permittee must use all the data collected during all other periods in assessing compliance. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for

which the monitoring system is out-of-control and data are not available for required calculations constitute an instance of noncompliance with the monitoring requirements. [§63.2270(b)]

iii. The Permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities; data recorded during periods of startup, shutdown, and malfunction; or data recorded during periods of control device downtime covered in any approved routine control device maintenance exemption in data averages and calculations used to report emission or operating levels, nor may such data be used in fulfilling a minimum data availability requirement, if applicable. The Permittee must use all the data collected during all other periods in assessing the operation of the control system. [§63.2270(c)]

iv. To calculate the data averages for each 24-hour averaging period, the Permittee must have at least 75 percent of the required recorded readings for that period using only recorded readings that are based on valid data (i.e., not from periods described in paragraphs ii and iii, above. [§63.2270(f)]

Recordkeeping Requirements [15A NCAC 02Q .0314, §63.2282 and .2283]

y. The Permittee shall keep the following:
   i. a copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status, according to the requirements in §63.10(b)(2)(xiv);
   ii. the records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction;
   iii. documentation of the approved routine control device maintenance exemption, requested under §63.2251;
   iv. records of performance tests and performance evaluations as required in §63.10(b)(2)(viii);
   v. the associated records for sections 2.2 A.3.u through w, above; and
   vi. records showing that non-HAP coatings are being used.

z. The Permittee shall:
   i. maintain records in a form suitable and readily available for expeditious review as specified in §63.10(b)(1).
   ii. as specified in §63.10(b)(1), keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
   iii. keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to §63.10(b)(1). The Permittee can keep the records offsite for the remaining 3 years.

   [§63.2283]

Reporting Requirements [15A NCAC 02Q .0314, 40 CFR 63.2281]

aa. The Permittee shall submit a compliance report semiannually postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of noncompliance with the requirements of this permit must be clearly identified. [§63.2281(b)(5) and §63.2281(g)]

The compliance report must contain the information in paragraphs i through viii of this section.

   i. Company name and address.
   ii. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
   iii. Date of report and beginning and ending dates of the reporting period.
   iv. If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information specified in §63.10(d)(5)(i).
   v. A description of control device maintenance performed while the control device was offline and one or more of the process units controlled by the control device was operating, including the information specified in paragraphs(v)(A) through (C) of this section.
      (A) The date and time when the control device was shut down and restarted.
      (B) Identification of the process units that were operating and the number of hours that each process unit operated while the control device was offline.
      (C) A statement of whether or not the control device maintenance was included in your approved routine control device maintenance exemption developed pursuant to §63.2251. If the control device maintenance was included in your approved routine control device maintenance exemption, then you must report the information in paragraphs v.(C)(1) through v.(C)(3) of this section.
         (1) The total amount of time that each process unit controlled by the control device operated during the semiannual compliance period and during the previous semiannual compliance period.
         (2) The amount of time that each process unit controlled by the control device operated while the control

device was down for maintenance covered under the routine control device maintenance exemption during the semiannual compliance period and during the previous semiannual compliance period.

(3) Based on the information recorded under paragraphs (aa)(v)(A) and (B) of this section for each process unit, compute the annual percent of process unit operating uptime during which the control device was offline for routine maintenance using Equation 1 of this section.

$$RM = \frac{DT_p + DT_c}{PU_p + PU_c} \qquad (Eq.\ 1)$$

Where:

RM = Annual percentage of process unit uptime during which control device is down for routine control device maintenance;

PU_p= Process unit uptime for the previous semiannual compliance period;

PU_c= Process unit uptime for the current semiannual compliance period;

DT_p= Control device downtime claimed under the routine control device maintenance exemption for the previous semiannual compliance period;

DT_c= Control device downtime claimed under the routine control device maintenance exemption for the current semiannual compliance period.

vi. The results of any performance tests conducted during the semiannual reporting period.

vii. If there are no instances of noncompliance with any applicable compliance option or operating requirement, a statement that there were no instances of noncompliance with the compliance options or operating requirements during the reporting period.

viii. If there were no periods during which the continuous monitoring system (CMS), including CPMS, was out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

[§63.2281(c)]

bb. The compliance report must also include the following information for each instance of noncompliance from a compliance option or operating requirement **where you are using a CMS** to comply with the compliance options and operating requirements. This includes periods of startup, shutdown, and malfunction and routine control device maintenance.

(1) The date and time that each malfunction started and stopped.
(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.
(3) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).
(4) The date and time that each instance of noncompliance started and stopped, and whether each instance of noncompliance occurred during a period of startup, shutdown, or malfunction; during a period of control device maintenance covered in your approved routine control device maintenance exemption; or during another period.
(5) A summary of the total duration of the instance of noncompliance during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
(6) A breakdown of the total duration of the instances of noncompliance during the reporting period into those that are due to startup, shutdown, control system problems, control device maintenance, process problems, other known causes, and other unknown causes.
(7) A summary of the total duration of CMS downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.
(8) A brief description of the process units.
(9) A brief description of the CMS.
(10) The date of the latest CMS certification or audit.
(11) A description of any changes in CMS, processes, or controls since the last reporting period.

[§63.2271, §63.2281(e)]

cc. The compliance report must also contain the following information for each instance of noncompliance with a compliance option or operating requirement and for each instance of noncompliance with the work practice requirements that occurs **where you are not using a CMS** to comply with the compliance options, operating requirements, or work practice requirements. This includes periods of startup, shutdown, and malfunction and routine control device maintenance.

(1) The total operating time of each affected source during the reporting period.
(2) Information on the number, duration, and cause of instances of noncompliance (including unknown cause, if

applicable), as applicable, and the corrective action taken.
[§63.2271, §63.2281(d)]

dd. The permittee shall submit a report if a startup, shutdown, or malfunction during the reporting period occurred that is not consistent with the SSMP. The report must contain the following:
   i. Actions taken for the event and must be submitted by fax or telephone within two working days after starting actions inconsistent with the plan.
   ii. The information in 40 CFR63.10(d)(5)(ii) and must be submitted by letter within seven working days after the end of the event unless alternative arrangements have been made with the permitting authority.
   [Table 9, 40 CFR 63 Subpart DDDD]

Notification Requirements [§63.2280]

ee. The Permittee shall:
   i. submit all of the notifications in §63.7(b) [*Notification of Performance Test*] and (c) [*Quality Assurance Program*], 63.8(e) [*Performance evaluation of CMS*], (f)(4) [*alternative monitoring method*] and (f)(6) [*alternative RATA*], 63.9 (b) through (e) [*initial notifications*], and (g) [*CMS notifications*] and (h) [*Notification of compliance status*] by the dates specified. [§63.2280(a)]
   ii. submit a written notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as specified in § 63.7(b)(1).
   iii. for the thermal oxidizer (**ID No. CD-108.02**) and the Surface Layer Dryer and Core Layer Dryer **(ID Nos. 109.011/109.012 and 109.021/109.022)**, submit a Notification of Compliance Status(NOCS) containing the results of the initial compliance demonstration, The NOCS shall be submitted before the close of business on the 60th calendar day following the completion of the performance test. [§§63.9(h)(2), 63.10(d)(2), 63.2260c), 63.2280(d)]
   iv. for the Particleboard Press (**ID No. 111.021**) and Star Coolers (**ID No. 111.021**), submit a Notification of Compliance Status containing the results of the initial compliance demonstration. The NOCS shall be submitted before the close of business on the 60th calendar day following the completion of the performance test not to exceed 180 days after start-up. [§§63.9(h)(2), 63.10(d)(2), 63.2260c), 63.2280(d)]

Table 2.2 A.4 Control and Prohiition of Odorous Emissions

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Facility-wide affected emission sources			
See Section 2.1 Emission Sources and Control Devices Specific Limitations and Conditions, above.			

STATE ENFORCEABLE ONLY

1. 15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

2.3 Other Applicable Requirements

1. **PERMIT RENEWAL REQUIREMENT –** The Permittee, at least 90 days prior to the expiration date of this permit, shall request permit renewal by letter in accordance with 15A NCAC 02Q .0304(d) and (f). Pursuant to 15A NCAC 02Q .0203(i), no permit application fee is required for renewal of an existing air permit (without a modification request). The renewal request (with AA application form) should be submitted to the Regional Supervisor, DAQ.

2. **ANNUAL EMISSION INVENTORY REQUIREMENT** – Pursuant to 15A NCAC 02Q .0207, the Permittee shall submit an air pollution emission inventory report (with Certification Sheet) by June 30 of each year in accordance with 15A NCAC 02Q .0207(a). The report shall include the actual emissions of each air pollutant listed in 15A NCAC .0207(a) from each emission source within the facility during the previous calendar year and be submitted to the Regional Supervisor, DAQ. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility as defined under 40 CFR 70.2.

3. **CAM PLAN REQUIRMENT - A Title V permit application with a CAM Plan is required the next time this permit is renewed (small and large PSEUs) or undergoes a significant modification (large PSEUs)** (e.g., Title V Part II application). [40 CFR 64.5]

4. **TITLE V PERMIT APPLICATION SUBMITTAL REQUIREMENT**
The Permittee shall file a Title V Air Quality Permit Application pursuant to 15A NCAC 02Q .0504. to modify the construction and operation permit on or before **12 months after commencing operation of the first listed source in this permit**. [15A NCAC 02Q .0504]

5. **NOTIFICATION REQUIREMENT**
As required by 15A NCAC 02D .0535, the Permittee of a source of excess emissions that last for more than four hours and that results from a malfunction, a breakdown of process or control equipment or any other abnormal conditions, shall:

   a. Notify the Director or his designee of any such occurrence by 9:00 a.m. Eastern time of the Division's next business day of becoming aware of the occurrence and describe:

      i. the name and location of the facility,
      ii. the nature and cause of the malfunction or breakdown,
      iii. the time when the malfunction or breakdown is first observed,
      iv. the expected duration, and
      v. an estimated rate of emissions.

   b. Notify the Director or his designee immediately when the corrective measures have been accomplished.

      This reporting requirement does not allow the operation of the facility in excess of Environmental Management Commission Regulations.

6. **FUGITIVE DUST PLAN REQUIREMENT (STATE ENFORCEABLE ONLY)**
As per 15A NCAC 02D .0540: PARTICULATES FROM FUGITIVE DUST EMISSIONS SOURCES - The Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

SECTION 3 - GENERAL CONDITIONS

1. In accordance with G.S. 143-215.108(c)(1), TWO COPIES OF ALL DOCUMENTS, REPORTS, TEST DATA, MONITORING DATA, NOTIFICATIONS, REQUESTS FOR RENEWAL, AND ANY OTHER INFORMATION REQUIRED BY THIS PERMIT shall be submitted to the:

   Regional Supervisor
   North Carolina Division of Air Quality
   Winston-Salem Regional Office
   450 West Hanes Mill Road, Suite 300
   Winston-Salem, NC 27105

   For identification purposes, each submittal should include the facility name as listed on the permit, the facility identification number, and the permit number.

2. RECORDS RETENTION REQUIREMENT - In accordance with 15A NCAC 02D .0605, any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. These records must be kept on site for a minimum of 2 years, unless another time period is otherwise specified.

3. ANNUAL FEE PAYMENT - Pursuant to 15A NCAC 02Q .0203(a), the Permittee shall pay the annual permit fee within 30 days of being billed by the DAQ. Failure to pay the fee in a timely manner will cause the DAQ to initiate action to revoke the permit.

4. EQUIPMENT RELOCATION - In accordance with 15A NCAC 02Q .0301, a new air permit shall be obtained by the Permittee prior to establishing, building, erecting, using, or operating the emission sources or air cleaning equipment at a site or location not specified in this permit.

5. REPORTING REQUIREMENT - In accordance with 15A NCAC 02Q .0309, any of the following that would result in previously unpermitted, new, or increased emissions must be reported to the Regional Supervisor, DAQ:
   a. changes in the information submitted in the application regarding facility emissions;
   b. changes that modify equipment or processes of existing permitted facilities; or
   c. changes in the quantity or quality of materials processed.

   If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

6. In accordance with 15A NCAC 02Q .0309, this permit is subject to revocation or modification by the DAQ upon a determination that information contained in the application or presented in the support thereof is incorrect, conditions under which this permit was granted have changed, or violations of conditions contained in this permit have occurred. In accordance with G.S. 143-215.108(c)(1), the facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air cleaning device(s) and appurtenances.

7. In accordance with G.S. 143-215.108(c)(1), this permit is nontransferable by the Permittee. Future owners and operators must obtain a new air permit from the DAQ.

8. In accordance with G.S. 143-215.108(c)(1), this issuance of this permit in no way absolves the Permittee of liability for any potential civil penalties which may be assessed for violations of State law which have occurred prior to the effective date of this permit.

9. In accordance with G.S. 143-215.108(c)(1), this permit does not relieve the Permittee of the responsibility of complying with all applicable requirements of any Federal, State, or Local water quality or land quality control authority.

10. In accordance with 15A NCAC 02D .0605, reports on the operation and maintenance of the facility shall be submitted by the Permittee to the Regional Supervisor, DAQ at such intervals and in such form and detail as may be required by the DAQ. Information required in such reports may include, but is not limited to, process weight rates, firing rates, hours of operation, and preventive maintenance schedules.

11. A violation of any term or condition of this permit shall subject the Permittee to enforcement pursuant to G.S. 143-215.114A, 143-215.114B, and 143-215.114C, including assessment of civil and/or criminal penalties.

12. Pursuant to North Carolina General Statute 143-215.3(a)(2), no person shall refuse entry or access to any authorized representative of the DAQ who requests entry or access for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

13. In accordance with G.S. 143-215.108(c)(1), this permit does not relieve the Permittee of the responsibility of complying with any applicable Federal, State, or Local requirements governing the handling, disposal, or incineration of hazardous, solid, or medical wastes, including the Resource Conservation and Recovery Act (RCRA) administered by the Division of Waste Management.

14. PERMIT RETENTION REQUIREMENT - In accordance with 15A NCAC 02Q .0110, the Permittee shall retain a current copy of the air permit at the site. The Permittee must make available to personnel of the DAQ, upon request, the current copy of the air permit for the site.

15. CLEAN AIR ACT SECTION 112(r) REQUIREMENTS - Pursuant to 15A NCAC 02D .2100 "Risk Management Program," if the Permittee is required to develop and register a risk management plan pursuant to Section 112(r) of the Federal Clean Air Act, then the Permittee is required to register this plan with the USEPA in accordance with 40 CFR Part 68.

16. PREVENTION OF ACCIDENTAL RELEASES - GENERAL DUTY - Pursuant to Title I Part A Section 112(r)(1) of the Clean Air Act "Hazardous Air Pollutants - Prevention of Accidental Releases - Purpose and General Duty," although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release. **This condition is federally-enforceable only.**

17. GENERAL EMISSIONS TESTING AND REPORTING REQUIREMENTS - If emissions testing is required by this permit, or the DAQ, or if the Permittee submits emissions testing to the DAQ in support of a permit application or to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow all DAQ procedures including protocol approval, regional notification, report submittal, and test results approval.